Governor Martin O'Malley's

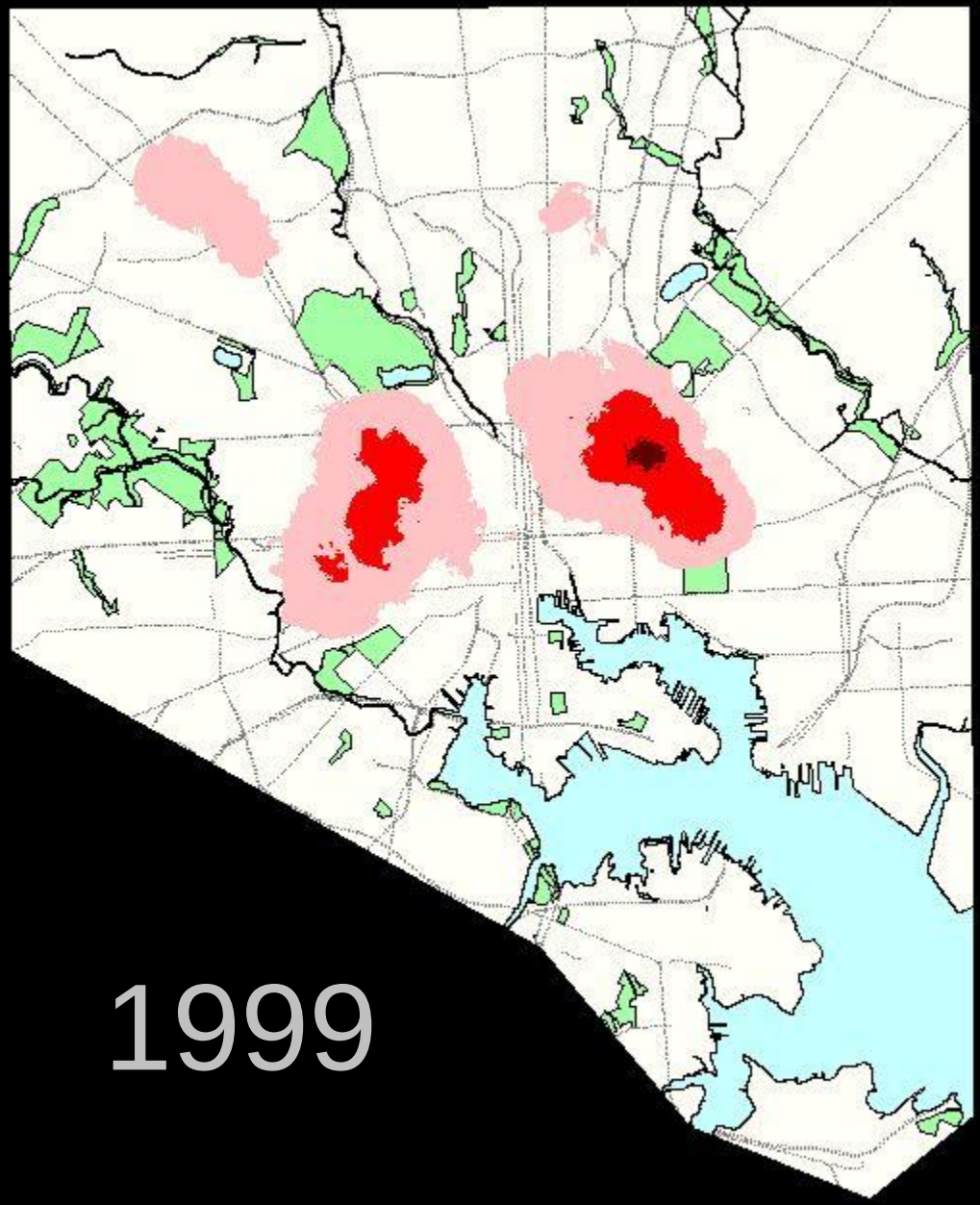
OLD GOVERNMENT TENETS

- If the Governor really wants to know, we can find out. But we'll have to pull all our people off their jobs. And it will take weeks.
- We'll get to that as soon as we can, but it will take a few months because our budget was cut last year.
- That's the way we've always done it / We're already doing that / We tried that and it didn't work.
- I hope the legislature forgets about this before next year's budget hearing.

STAT TENETS

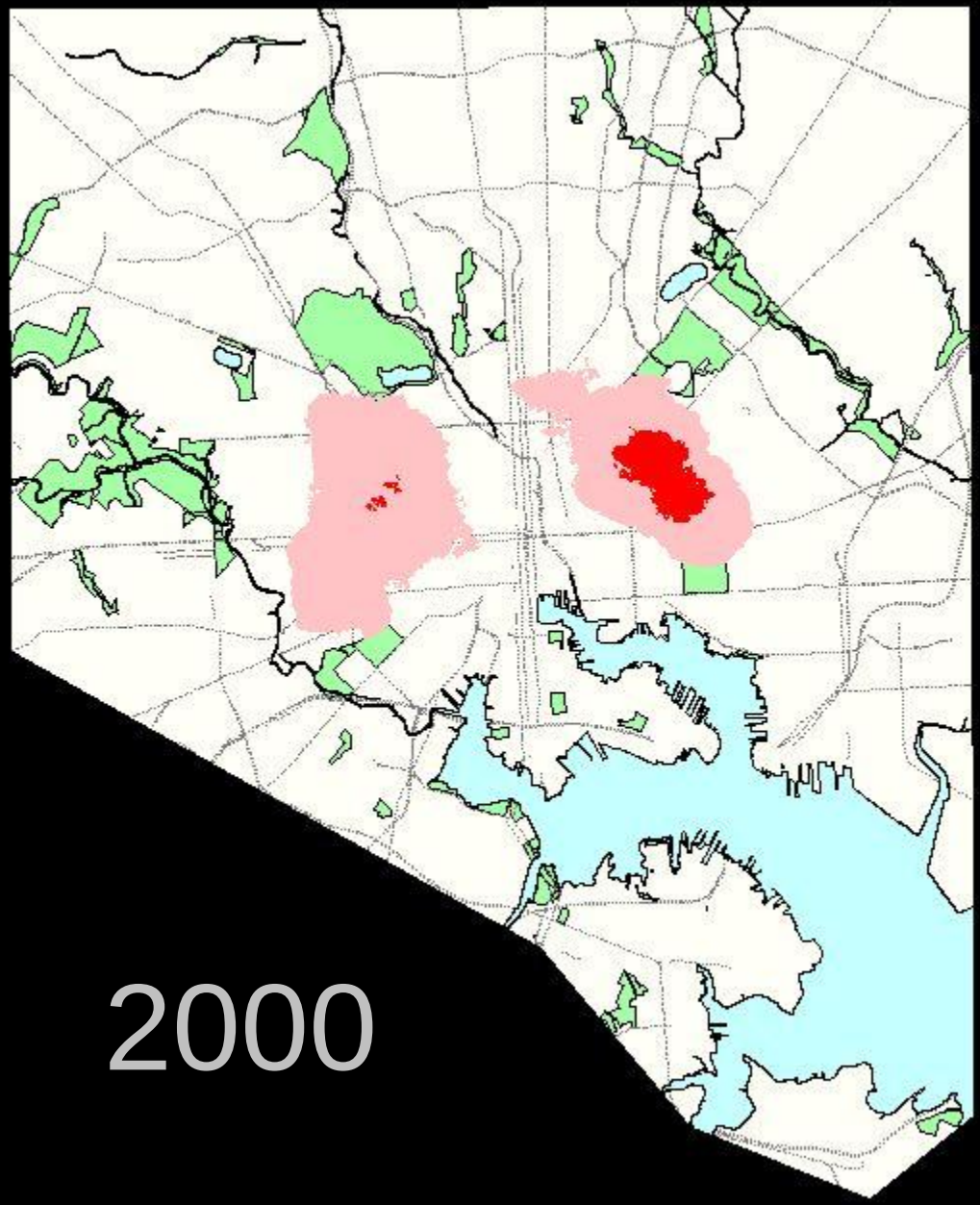
- Timely and Accurate intelligence shared by all
- Rapid deployment of resources
- Effective tactics and strategies
- Relentless follow-up and assessment

Baltimore Homicides & Shootings



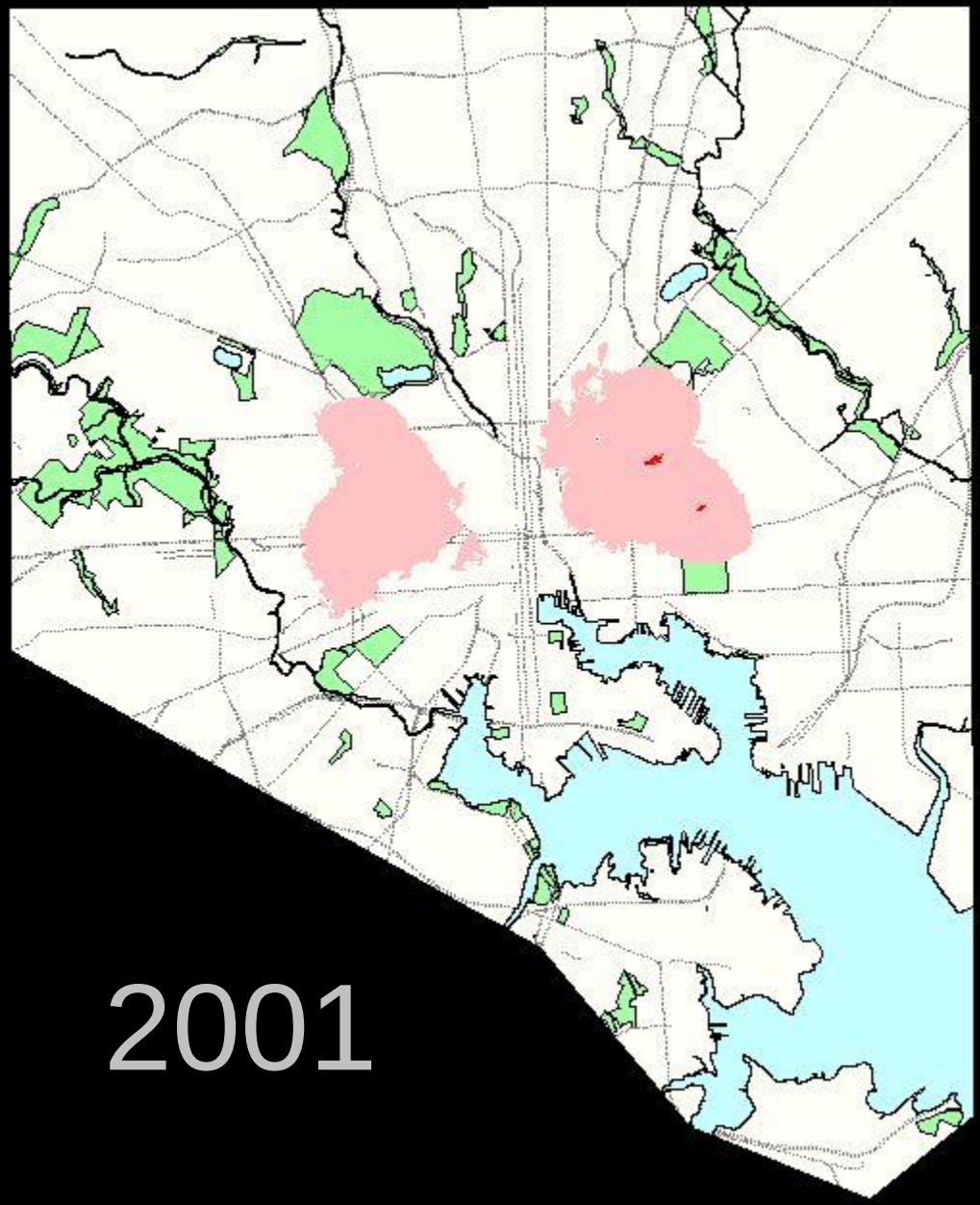
1999

Baltimore Homicides & Shootings



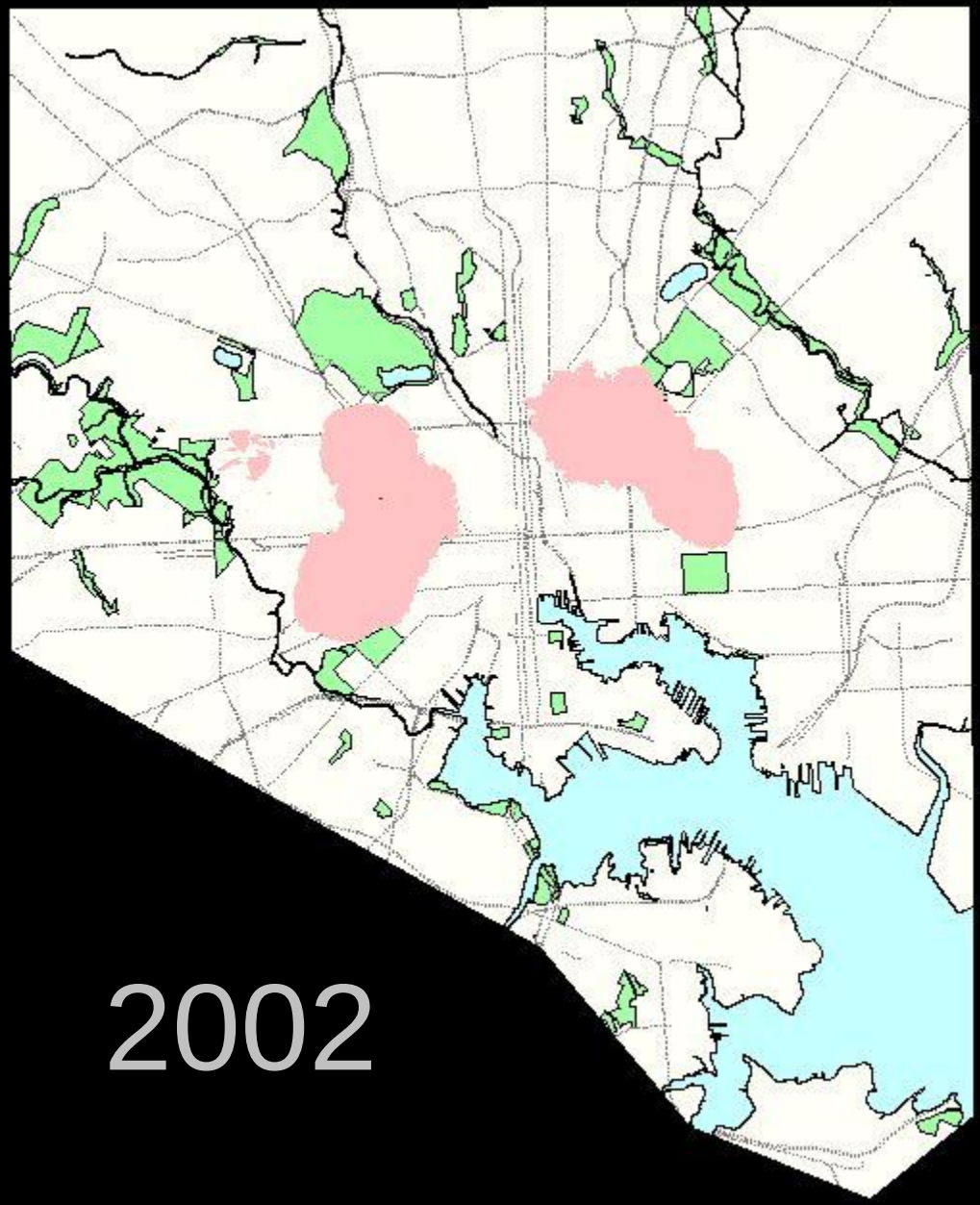
2000

Baltimore Homicides & Shootings



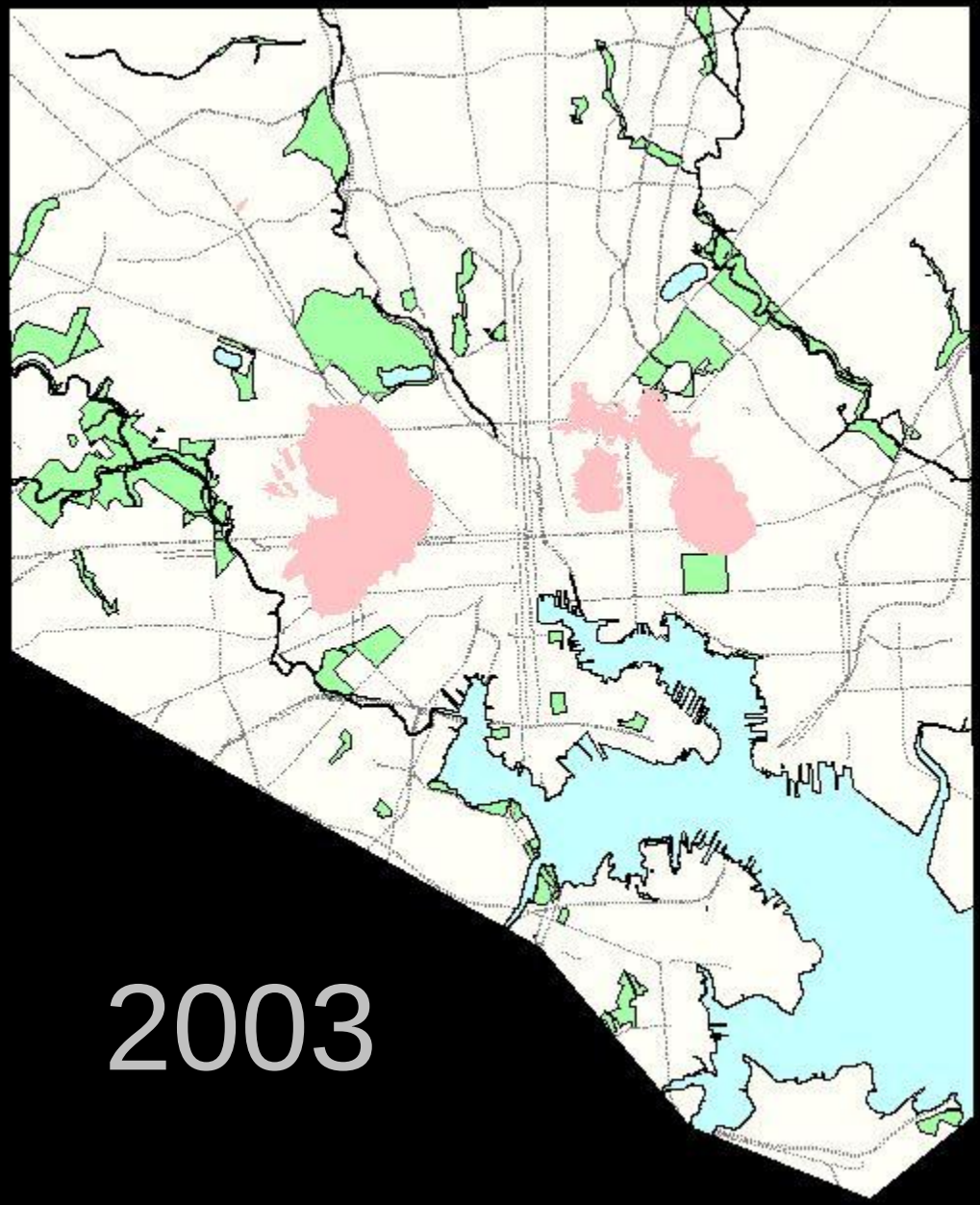
2001

Baltimore Homicides & Shootings



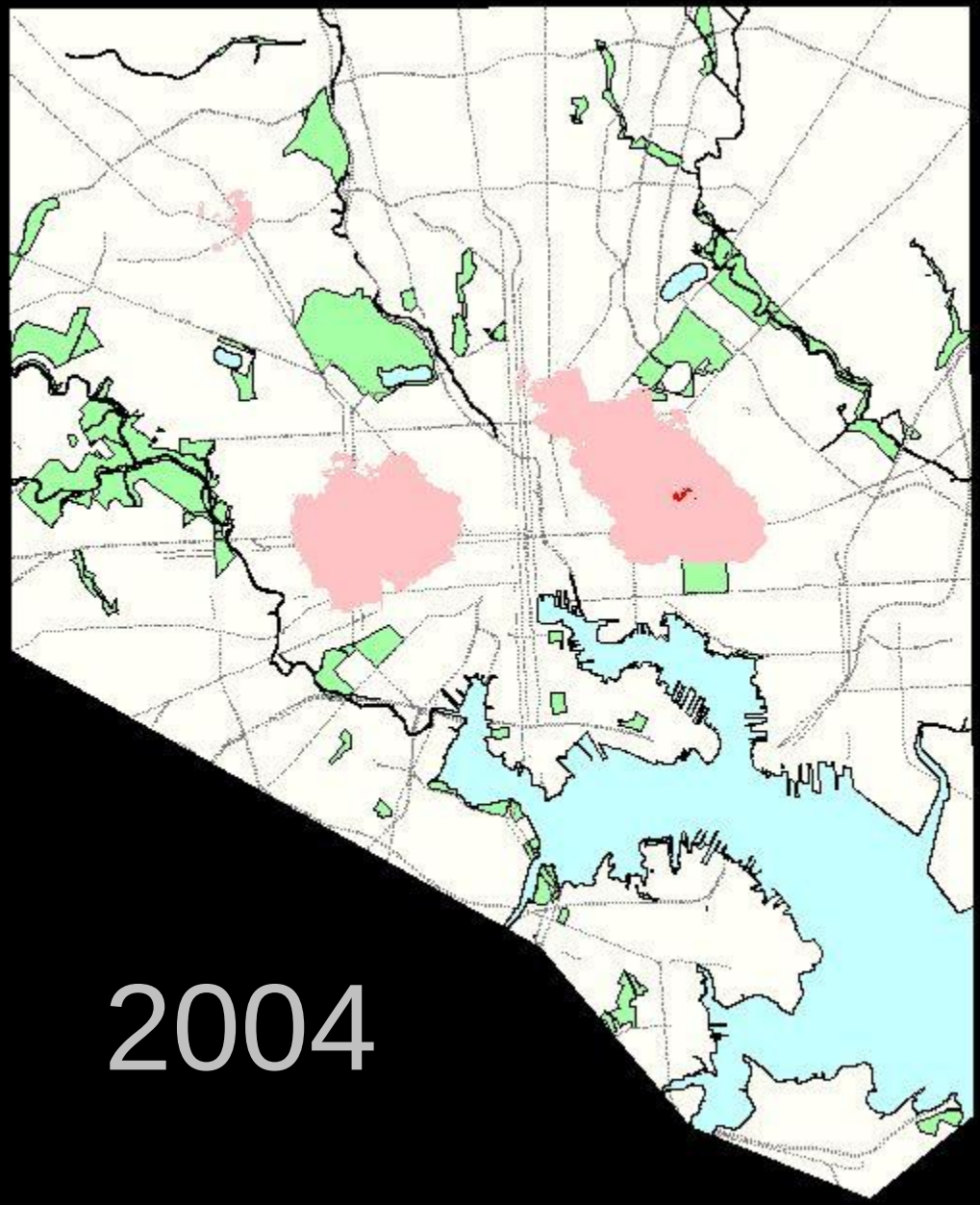
2002

Baltimore Homicides & Shootings



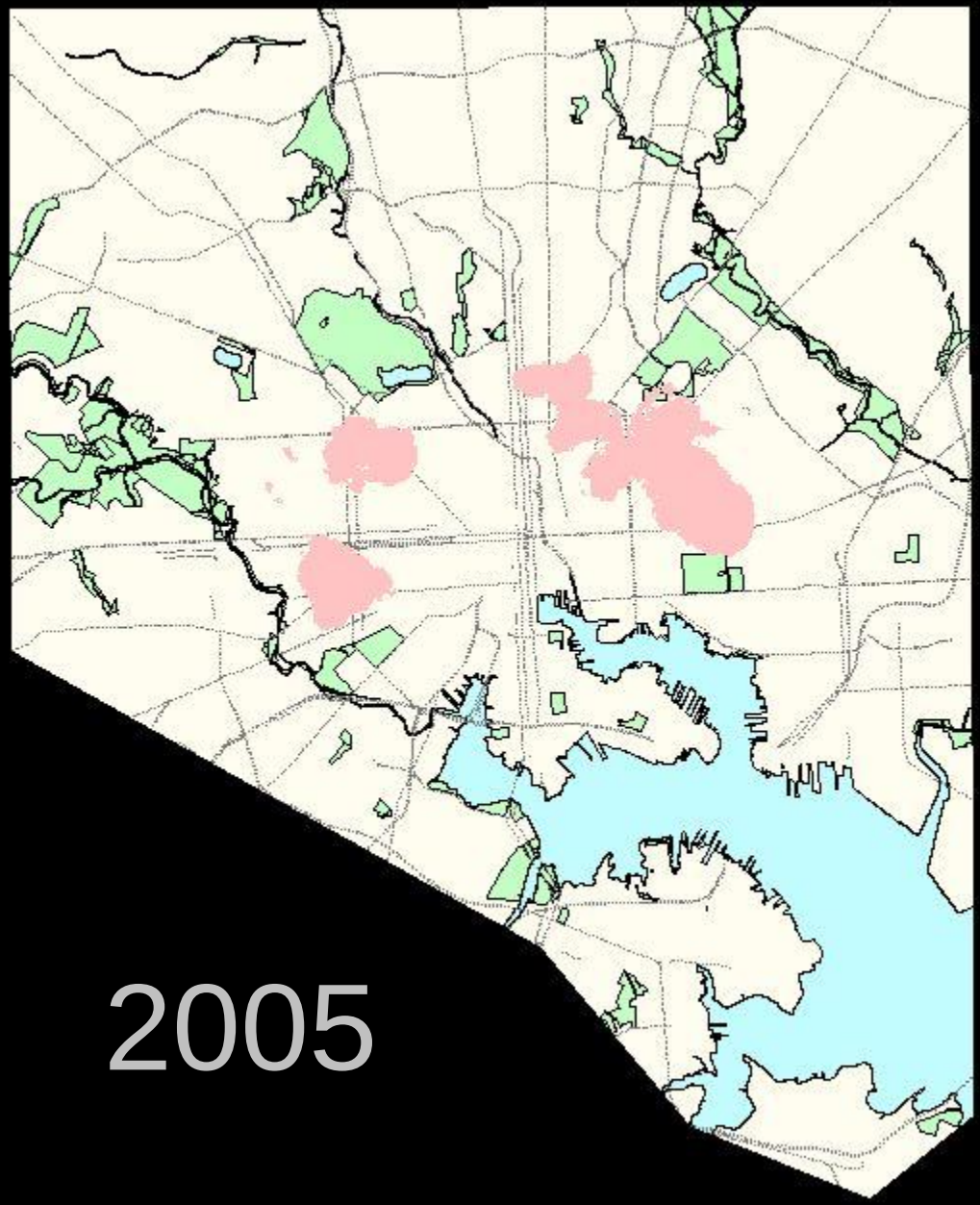
2003

Baltimore Homicides & Shootings



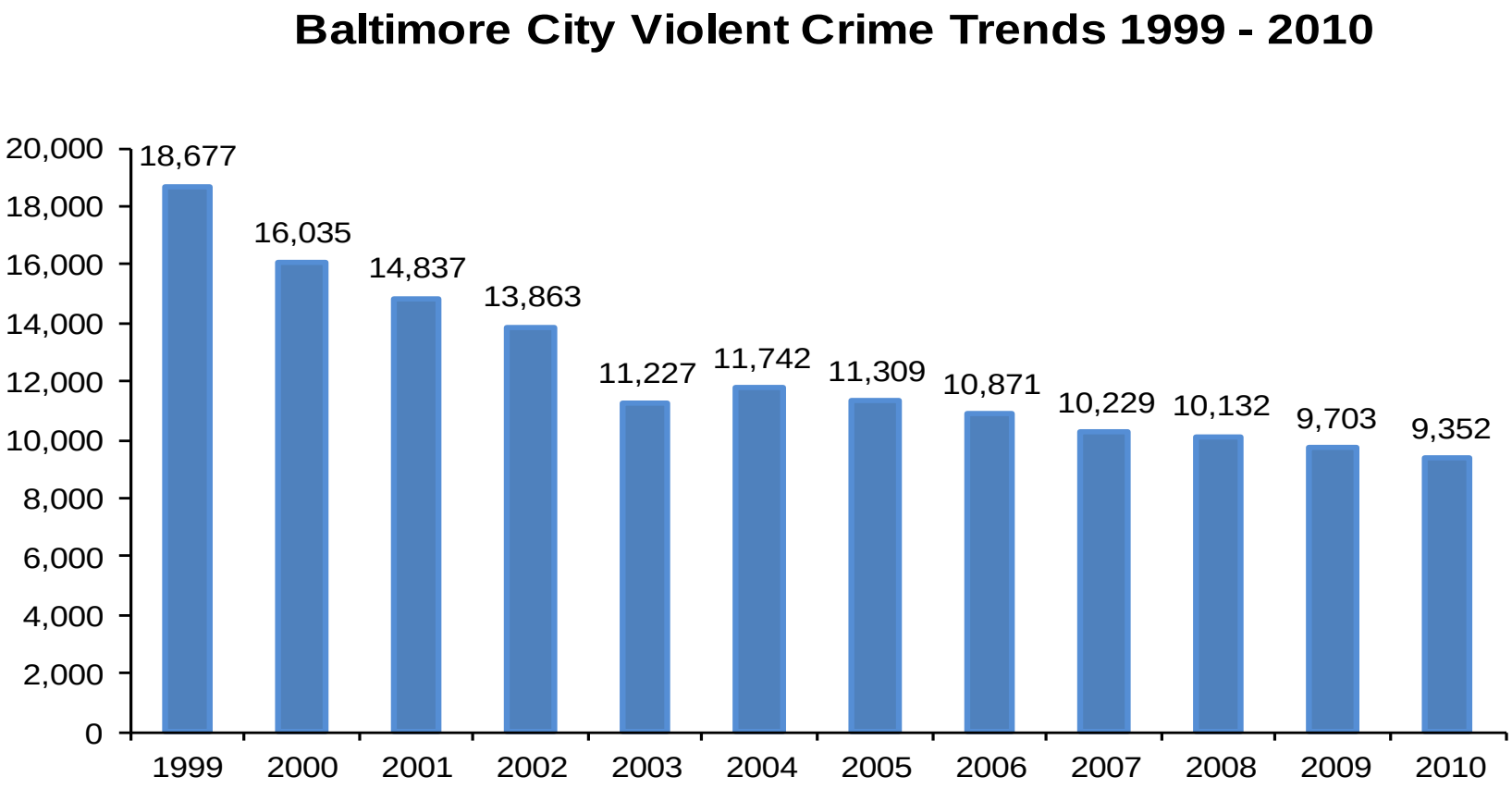
2004

Baltimore Homicides & Shootings



2005

Baltimore City 1999-2010
49.9 Percent Reduction in Violent Crime



Current Health

Causes of the Problems

Solutions

Trust Fund

Tributary Teams

GET INVOLVED

Welcome

How to Navigate Site

A Message from the Governor

Executive Order (pdf)

Fact Sheet (pdf)

BayStat and Land Conservation

Oysters

News

FREE Email Newsletter

PARTICIPANTS

- Office of the Governor

Governor Martin O'Malley Announces 2011 Blue Crab Winter Dredge Survey Results

Governor Martin O'Malley announced that the Chesapeake Bay's blue crab population is at its second highest level since 1997 and well above the target for the third year in a row, setting the stage for a Bay-wide recovery. The results of the 2011 Blue Crab Winter Dredge Survey indicate that management measures put into place in 2008 are continuing to pay dividends for the crab population, the industry, recreational crabbers and those who just plain enjoy the Bay's favorite crustacean. Joined by stakeholders, elected officials and staff, Governor O'Malley made the announcement from the deck of Mike's Crab House near Annapolis, overlooking the South River. Read more...

Maryland's Role in the Chesapeake Bay TMDL

The State of Maryland submitted its Final Phase I Watershed Implementation Plan to the Environmental Protection Agency on December 3, 2010. This Plan was developed by the Maryland

video transcript

BayStat in the News

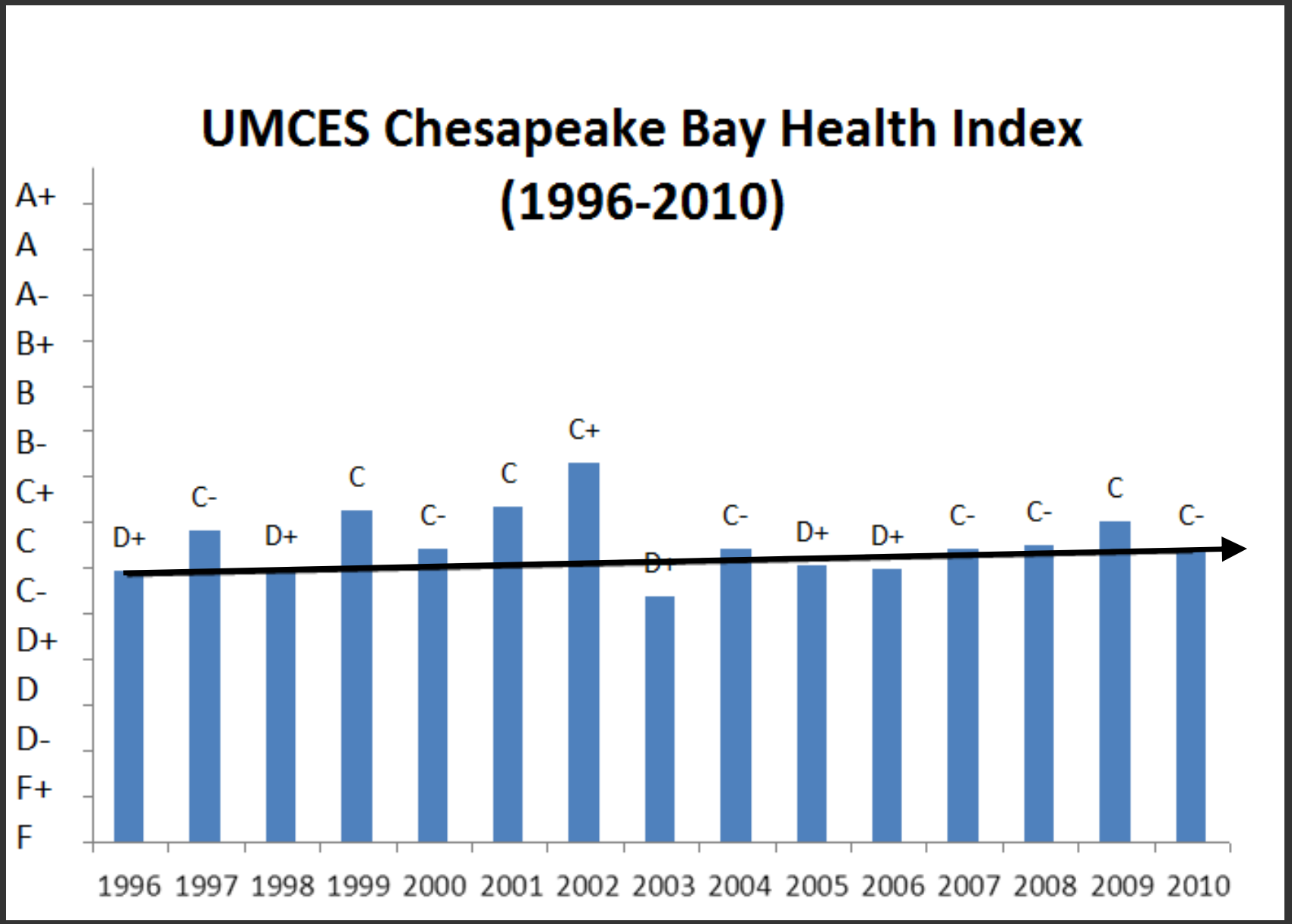
4/19/11 - Governor Martin O'Malley Announces 2011 Blue Crab Winter Dredge Survey Results - *DNR*

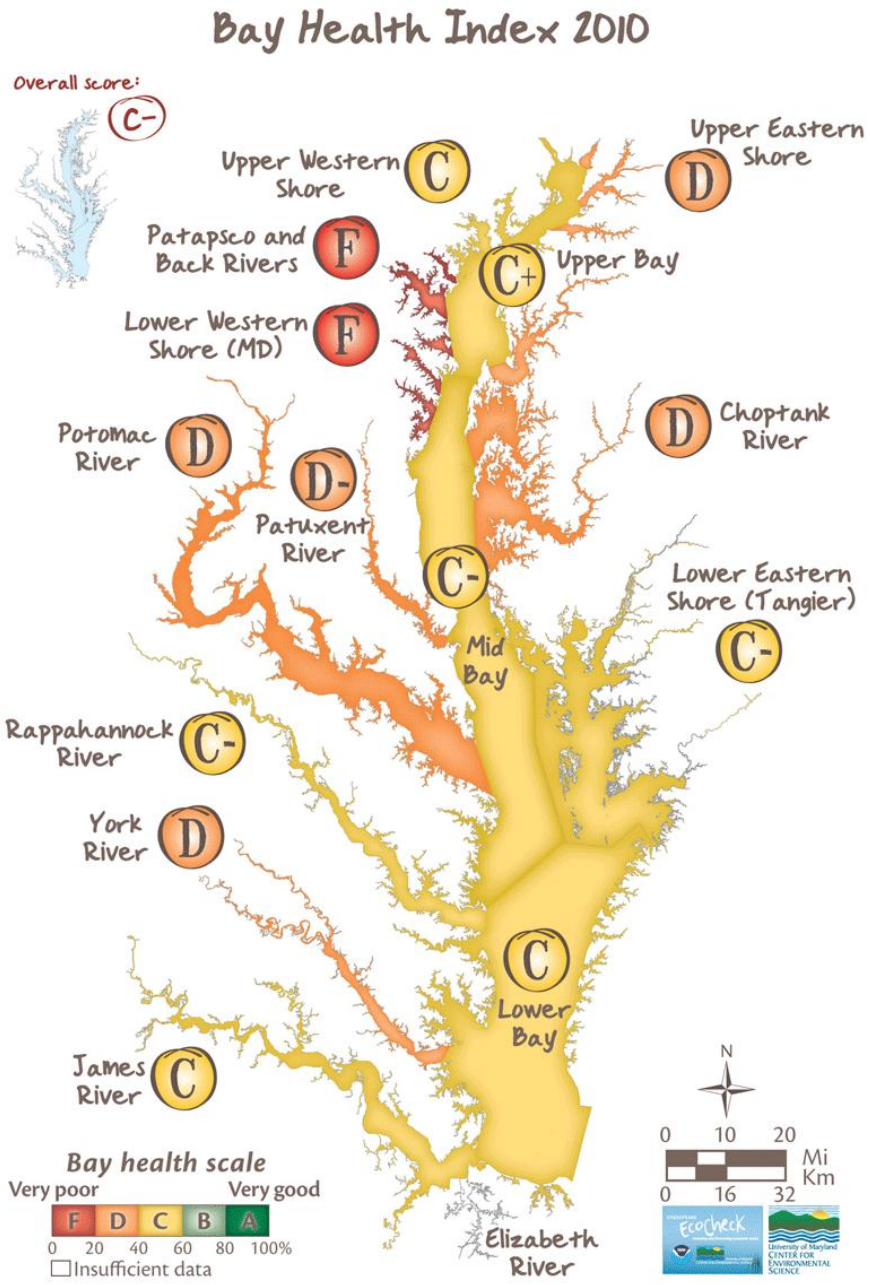
3/23/11 - Somers Cove Gets $60K Grant - *DelmarvaNOW.com*

3/14/11 - Citizen Oyster Growers And DNR Meet To Plan Marylanders Grow Oysters Program For 2011 - *DNR*

2/16/11 - O'Malley, Environmentalists Make Argument For Septic Ban - *Southern Maryland News*

Bay Health Over Time





- UMCES bases the Bay Health Index on 6 Indicators
- These indicators include:
  - Water Clarity
  - Dissolved Oxygen
  - Benthic Community
  - Aquatic Grasses
  - Phytoplankton Community
  - Chlorophyll a.

How to Use This Site

Monitoring Stories and Publications

What Does It Mean?

Lesson Plans

Links and Social Media

Partners

Ask an Expert

BayStat

Maryland StreamHealth

DNR Home Page

Eyes on the Bay - Home

Welcome to the new site! Please email us with comments or kudos and view our Twitter feed below.

Maryland DNR said: MD & VA will be conducting its normal water quality cruises for Chesapeake Bay next week and will report on any effects of Irene

Maryland DNR said: Telemetry removed from most sites. PAX & Bush sites still real-time through our NOAA/NERRS partner site. http://t.co/ziNbStQ

Maryland DNR said: If you have a flood prone garage or basement, move all your house and lawn chemicals to higher ground to prevent H20 pollution.

Click a station for more info and data

Monitoring Types & Stations

- Water Quality Mapping
- Continuous Monitoring
- Long-Term Monitoring
- Partners/Other Data Providers

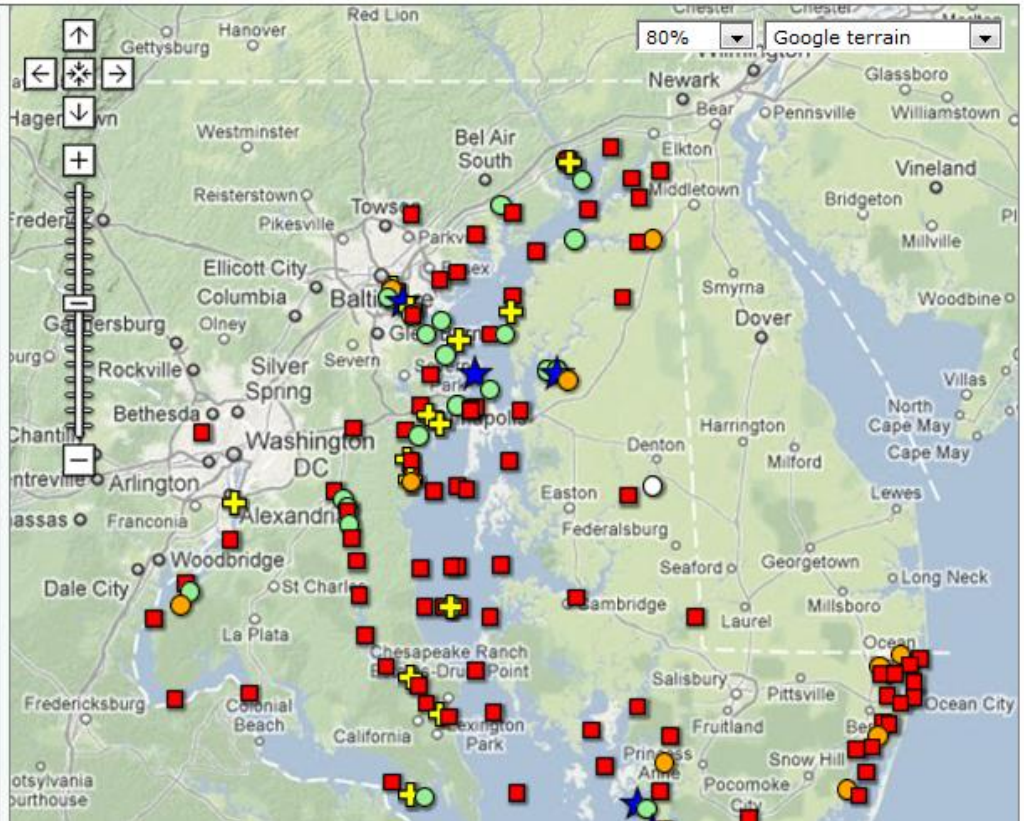
-Click Arrow to Expand Legend
-Checkbox Removes/Adds Layer
-Link Returns Program Info

Select Another Year for Map Display:
2011

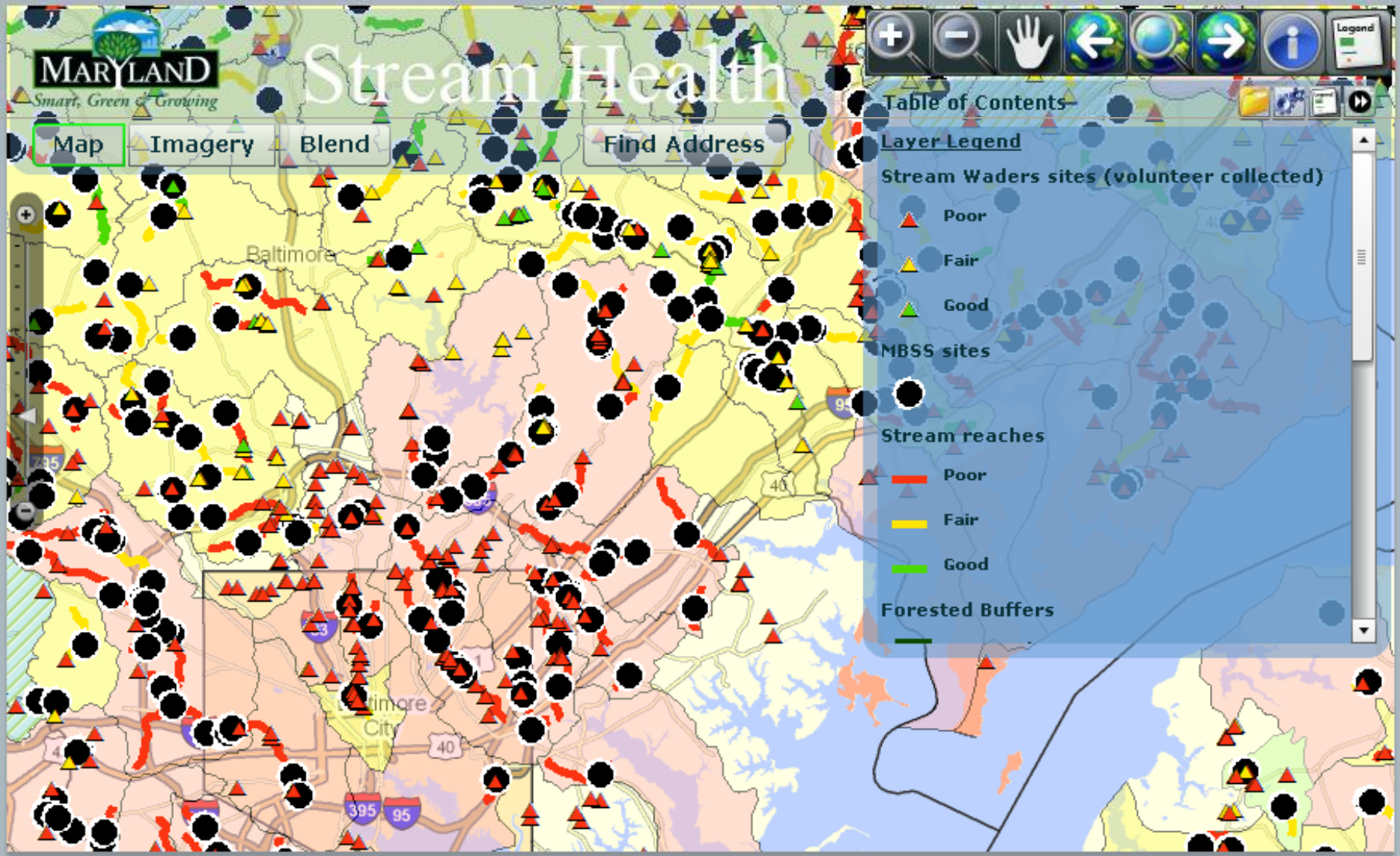
Submit

Station Legend

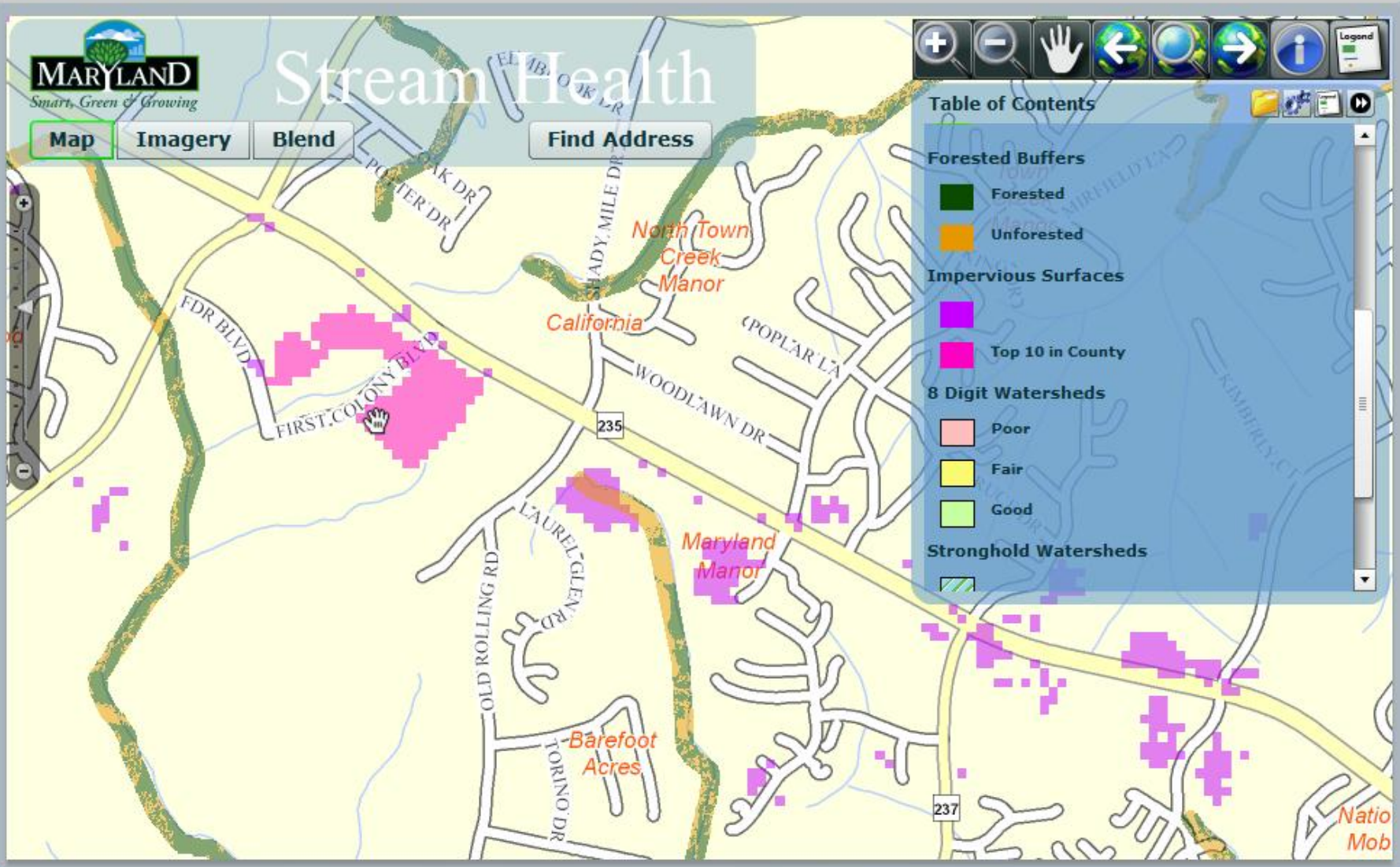
- Long-Term Fixed Station
- Dataflow / Water Quality Mapping Segment
- Continuous Monitoring Station with Real-time



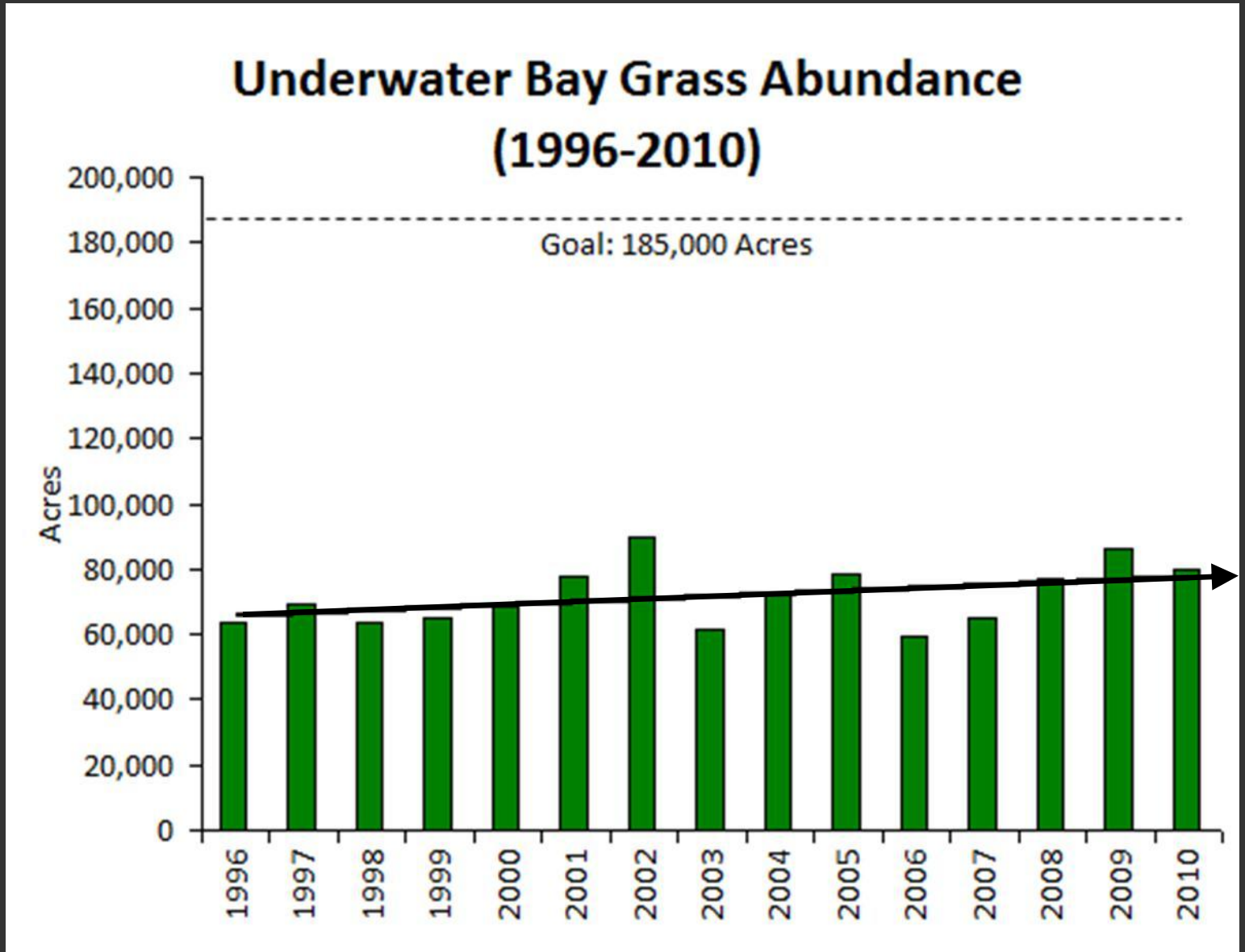
StreamHealth



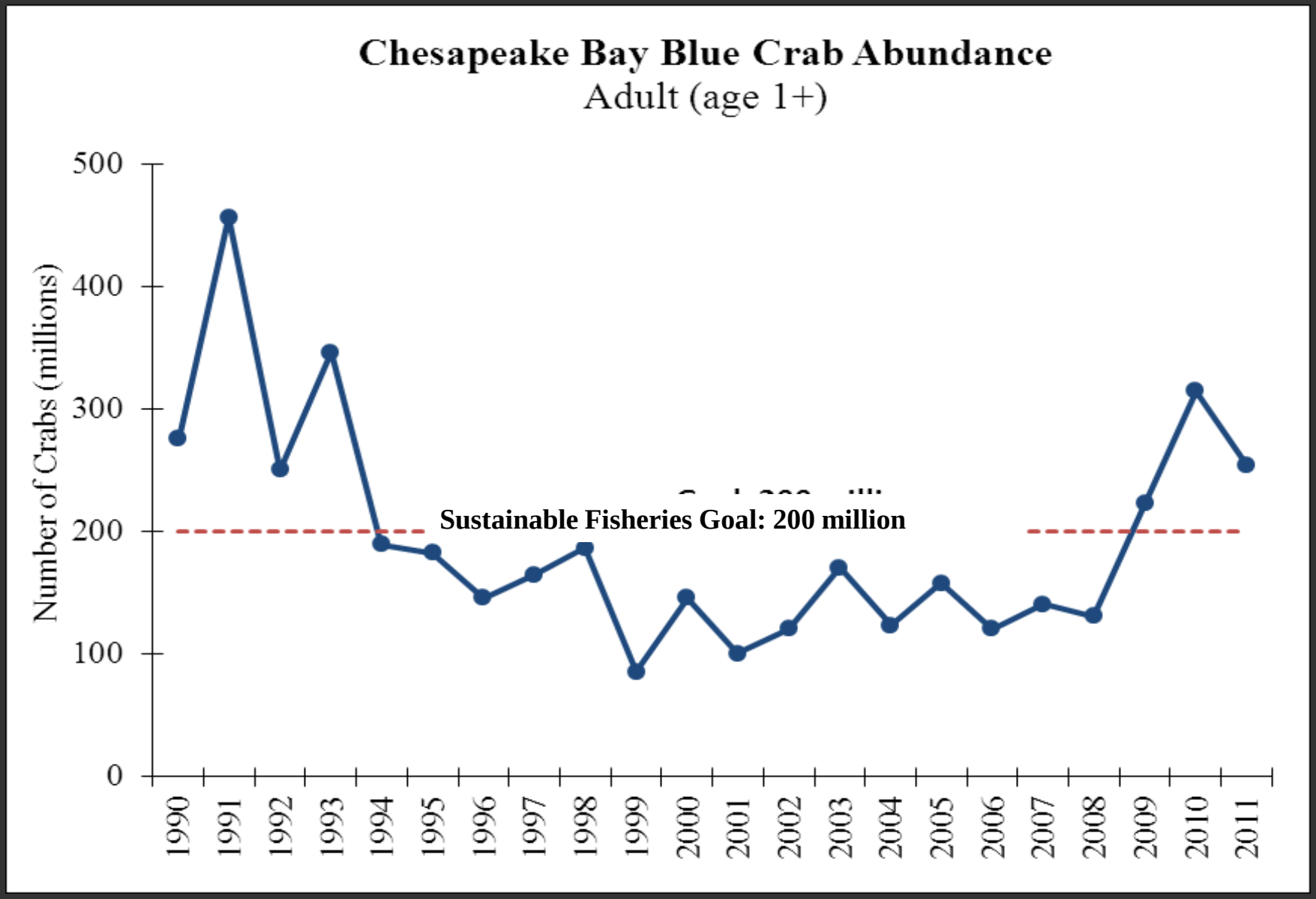
StreamHealth



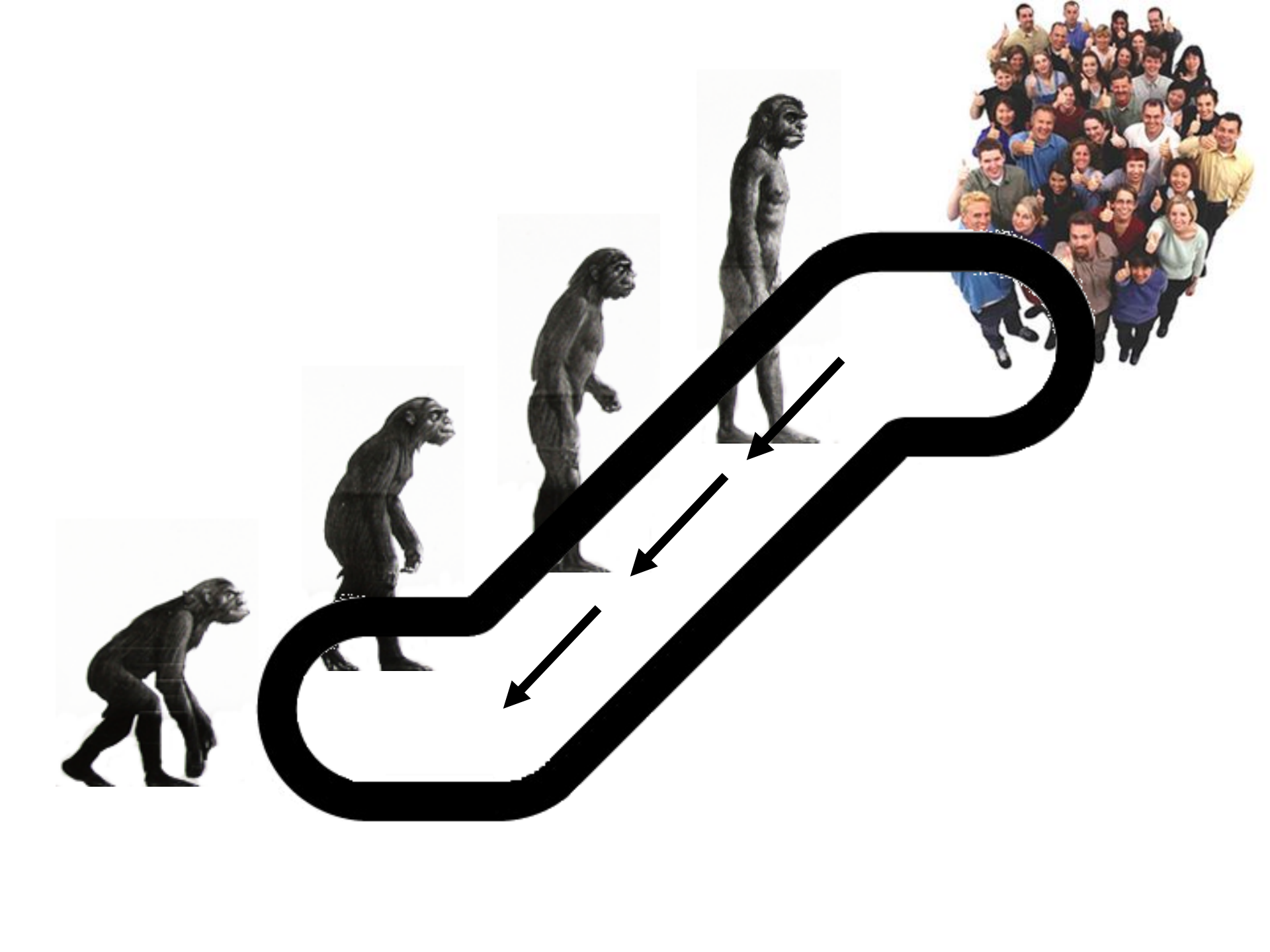
Bay Grass


Underwater Bay Grass Abundance
(1996-2010)
Goal: 185,000 Acres
Acres
200,000
180,000
160,000
140,000
120,000
100,000
80,000
60,000
40,000
20,000
0
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010

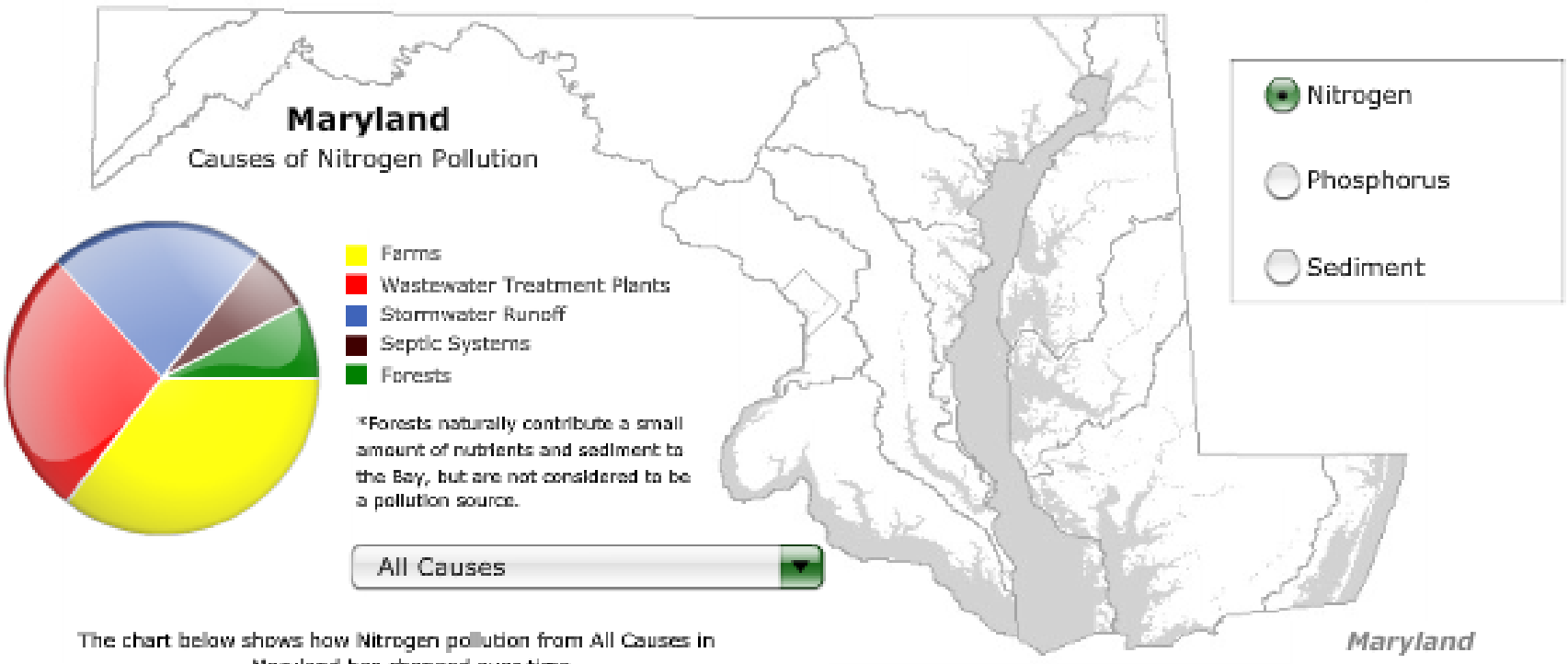
Blue Crab Population



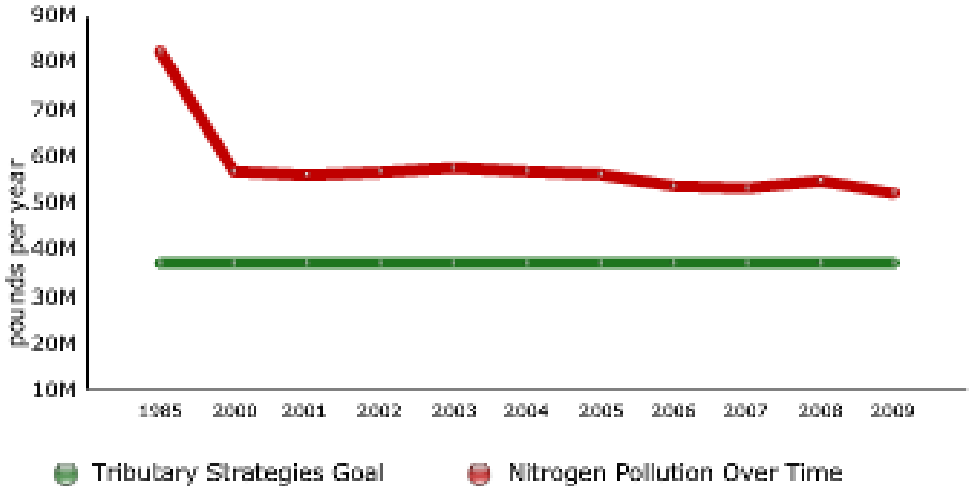
CAUSES



Causes of the Problems

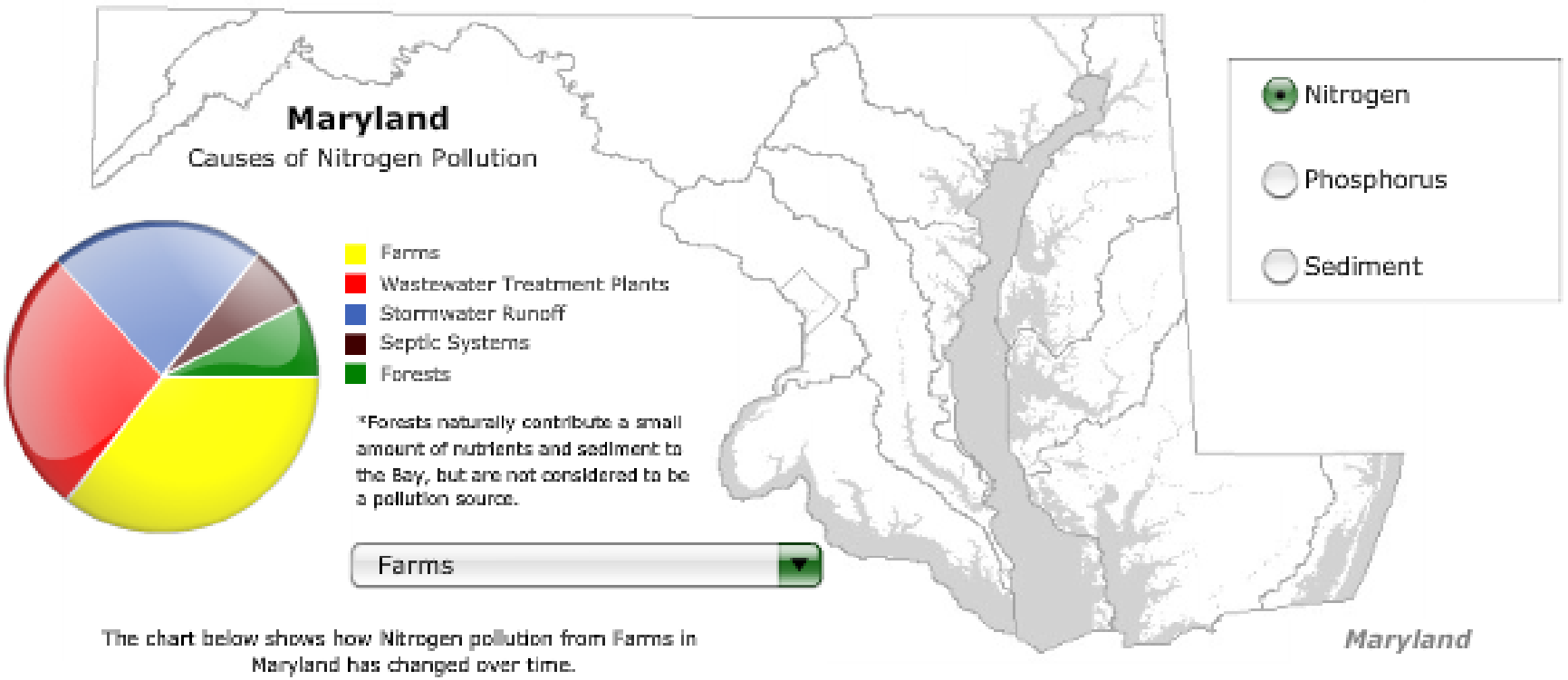


The chart below shows how Nitrogen pollution from All Causes in Maryland has changed over time.

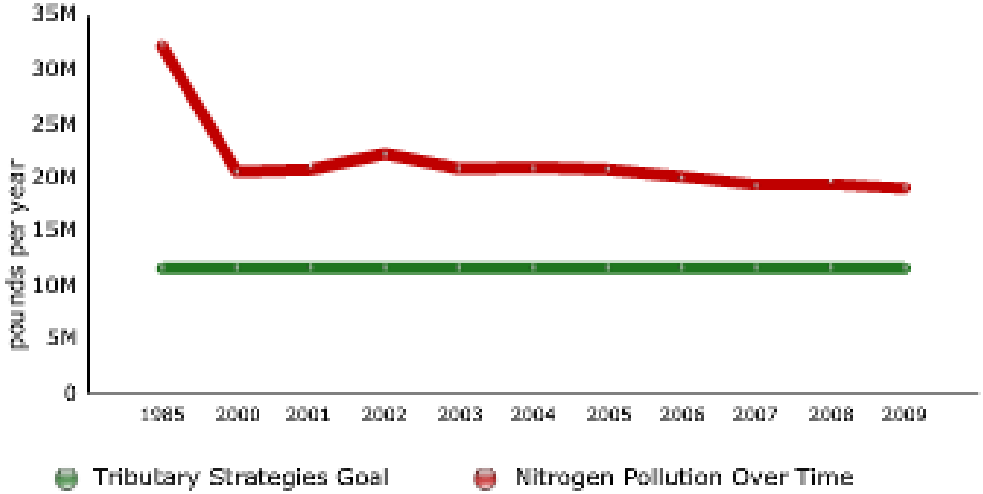


Nitrogen pollution fuels the growth of algae, creating dense, harmful algae blooms that rob the Chesapeake Bay's aquatic life of needed sunlight and oxygen. Sources of nitrogen pollution include air pollution from vehicles, coal-burning power plants and industry; fertilizers from farmfields, lawns and golf courses; wastewater from industrial facilities, sewage treatment plants and septic systems; and animal manure from farms.

Causes of the Problems



The chart below shows how Nitrogen pollution from Farms in Maryland has changed over time.



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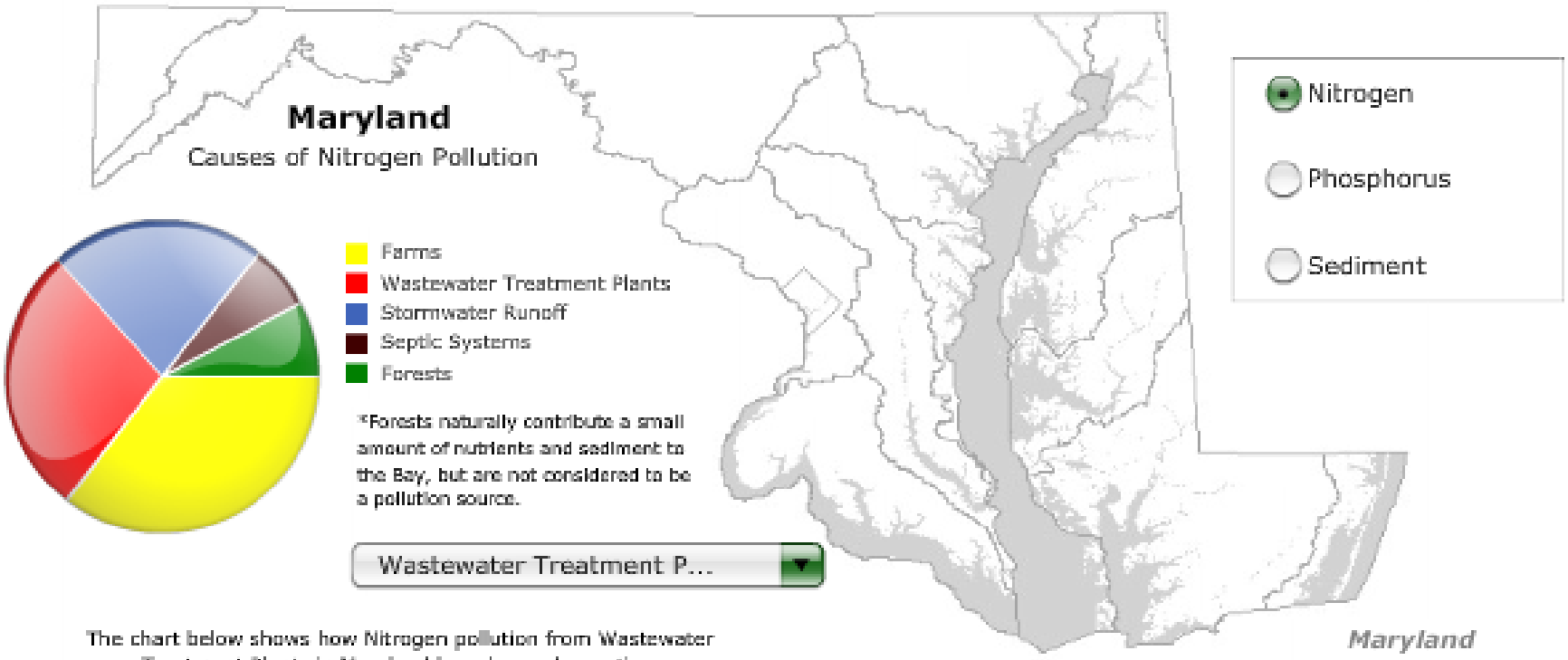
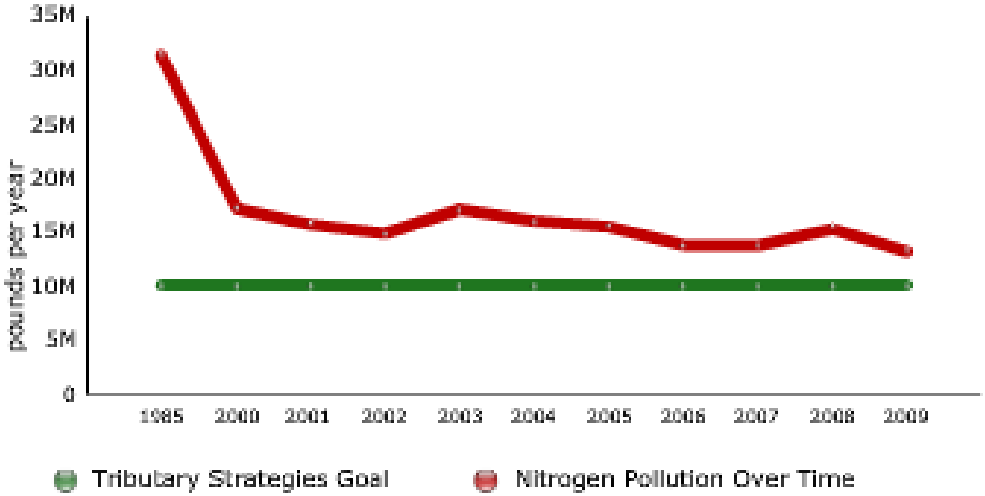
Causes of the Problems



The chart below shows how Nitrogen pollution from Wastewater Treatment Plants in Maryland has changed over time.



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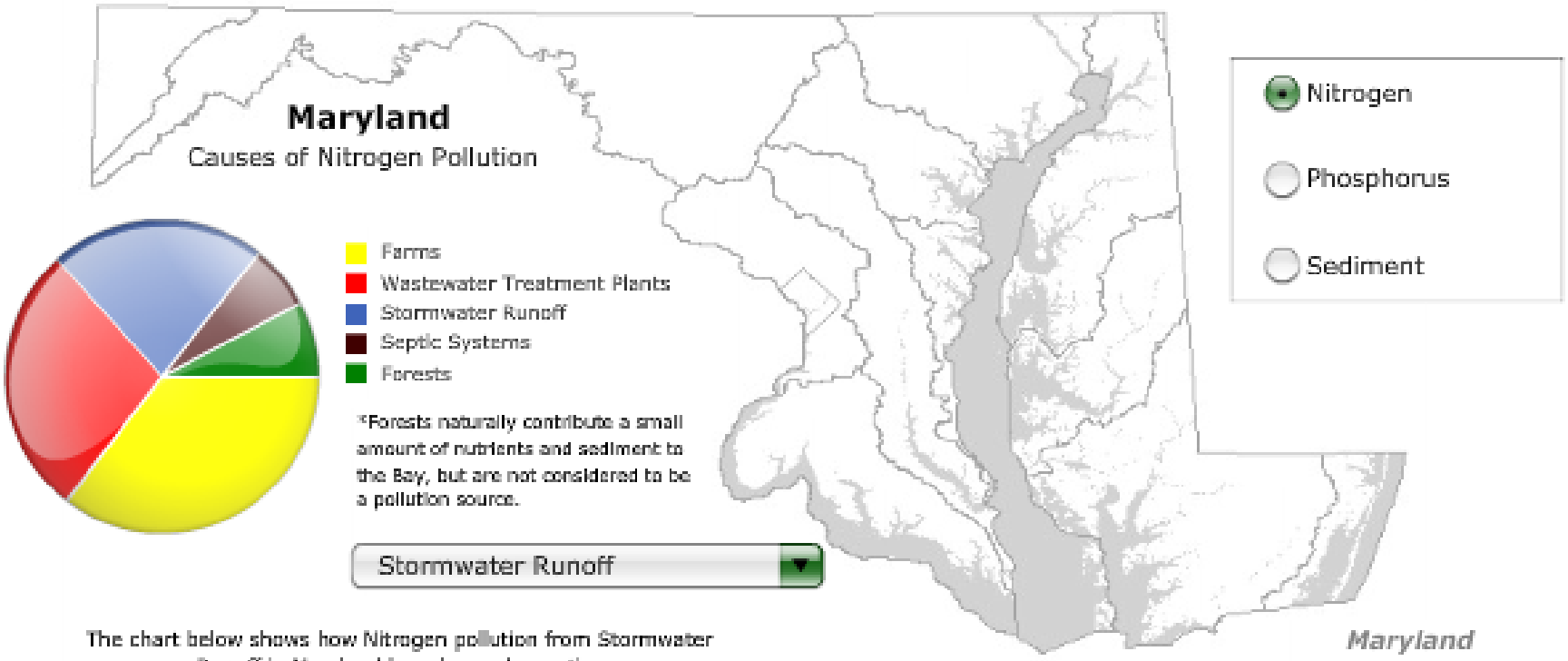
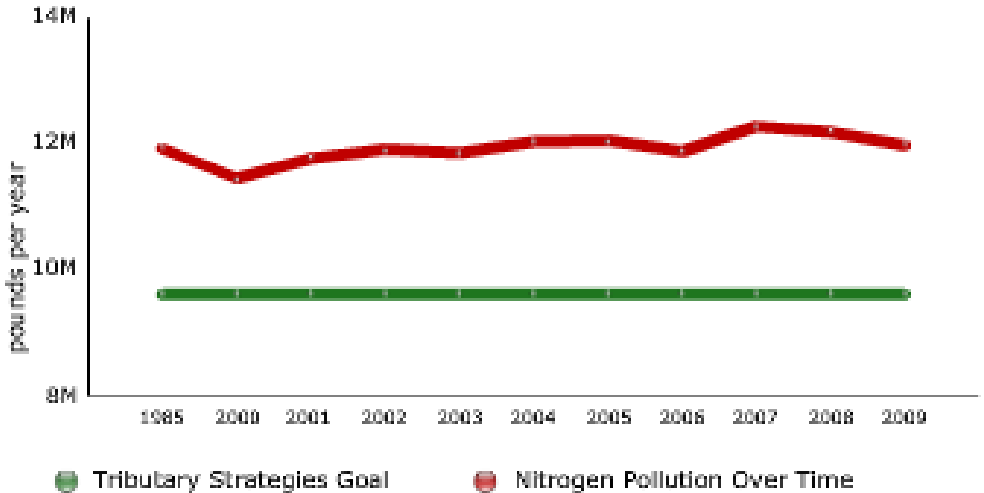
Causes of the Problems



The chart below shows how Nitrogen pollution from Stormwater Runoff in Maryland has changed over time.



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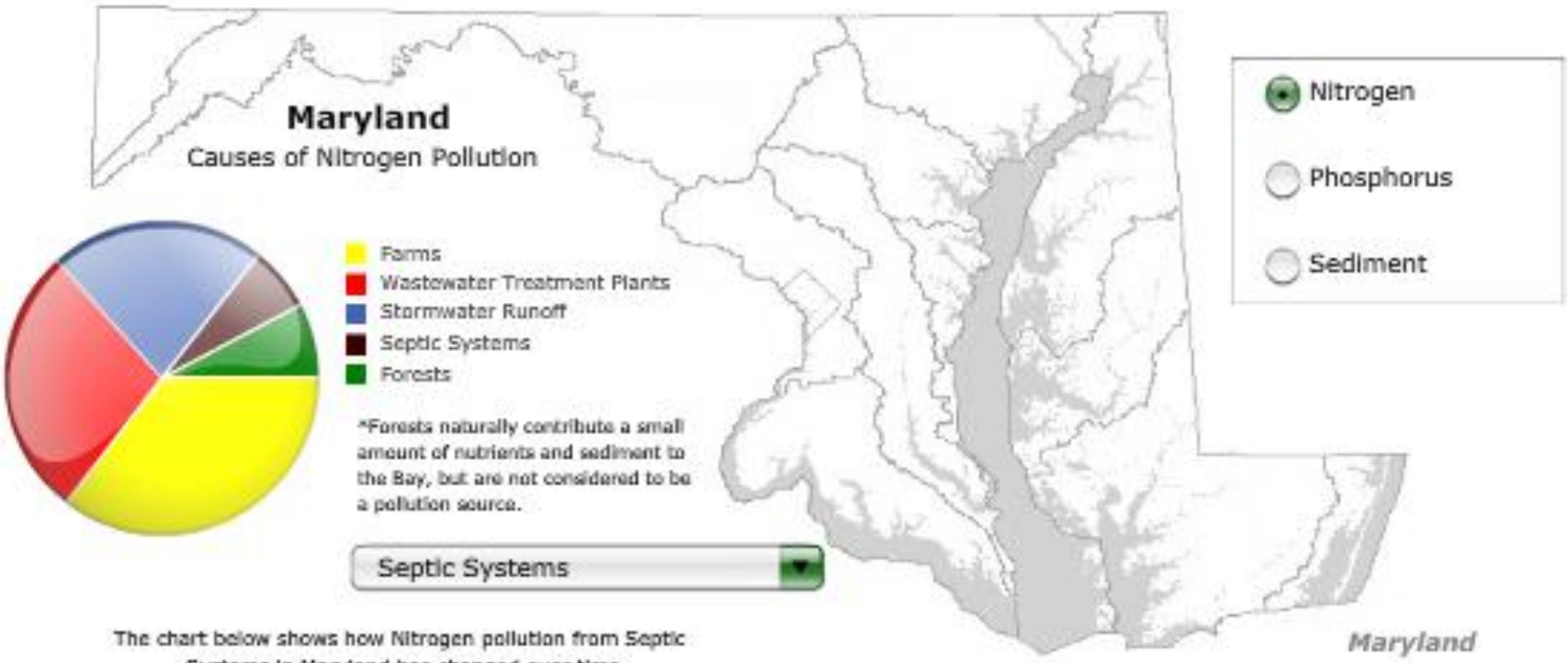
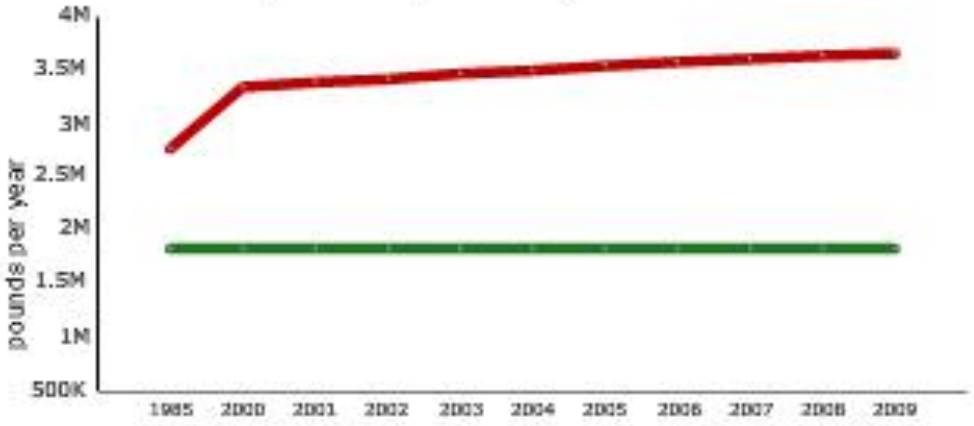
Causes of the Problems



The chart below shows how Nitrogen pollution from Septic Systems in Maryland has changed over time.



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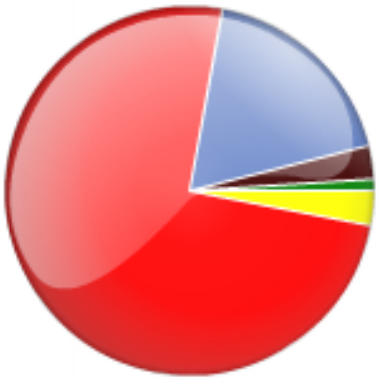
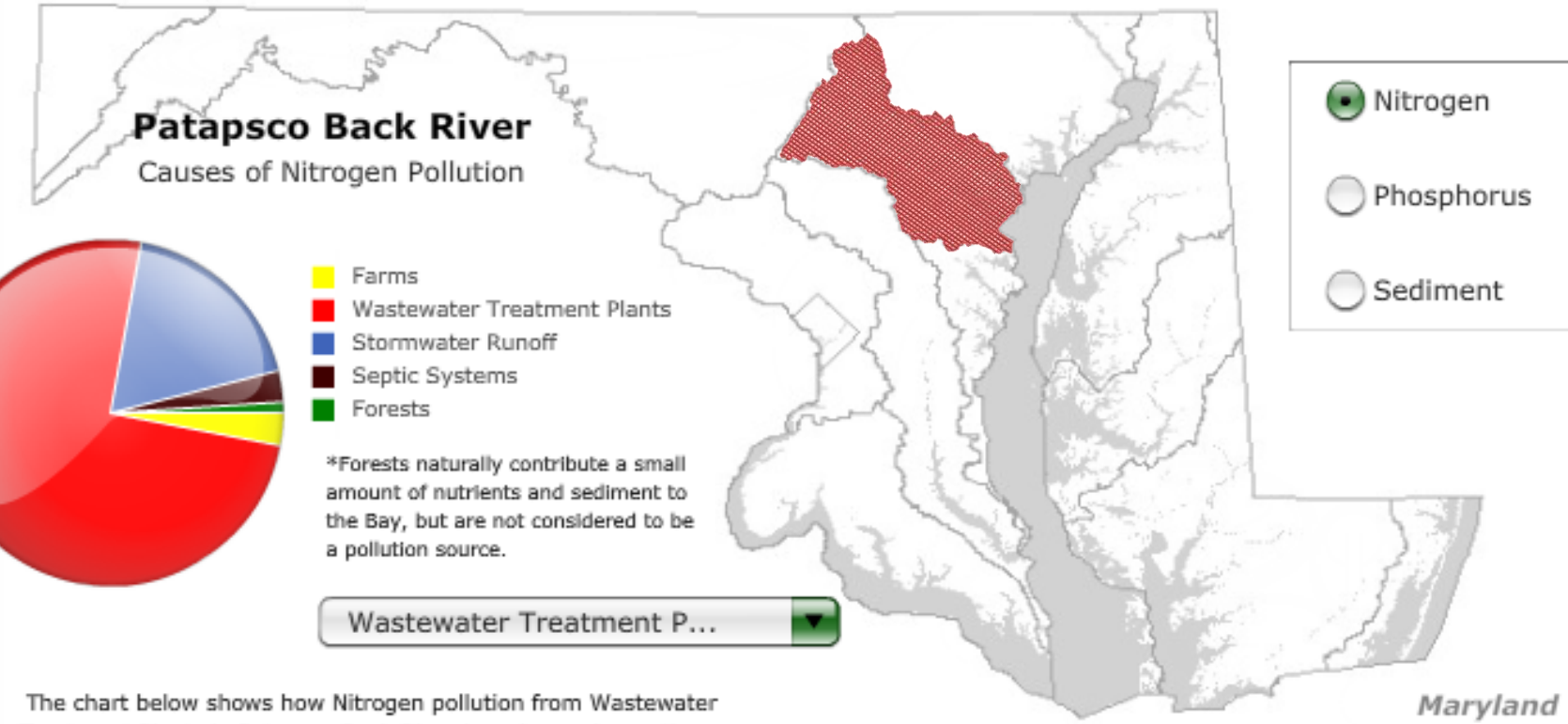
Patapsco Back River

Causes of Nitrogen Pollution



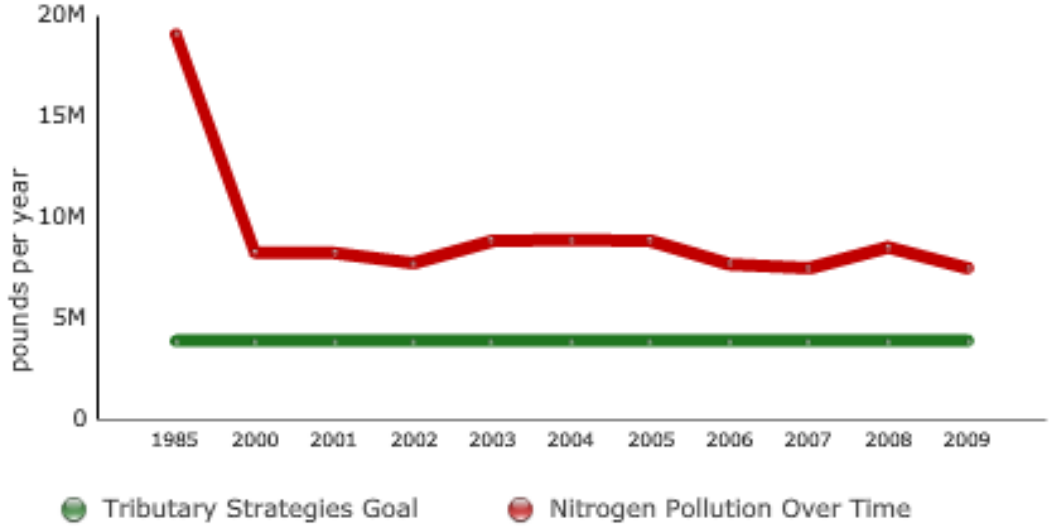
- Farms
- Wastewater Treatment Plants
- Stormwater Runoff
- Septic Systems
- Forests

*Forests naturally contribute a small amount of nutrients and sediment to the Bay, but are not considered to be a pollution source.



Wastewater Treatment P...

The chart below shows how Nitrogen pollution from Wastewater Treatment Plants in Patapsco Back River has changed over time.



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Lower Eastern Shore

Causes of Nitrogen Pollution

- Farms
- Wastewater Treatment Plants
- Stormwater Runoff
- Septic Systems
- Forests

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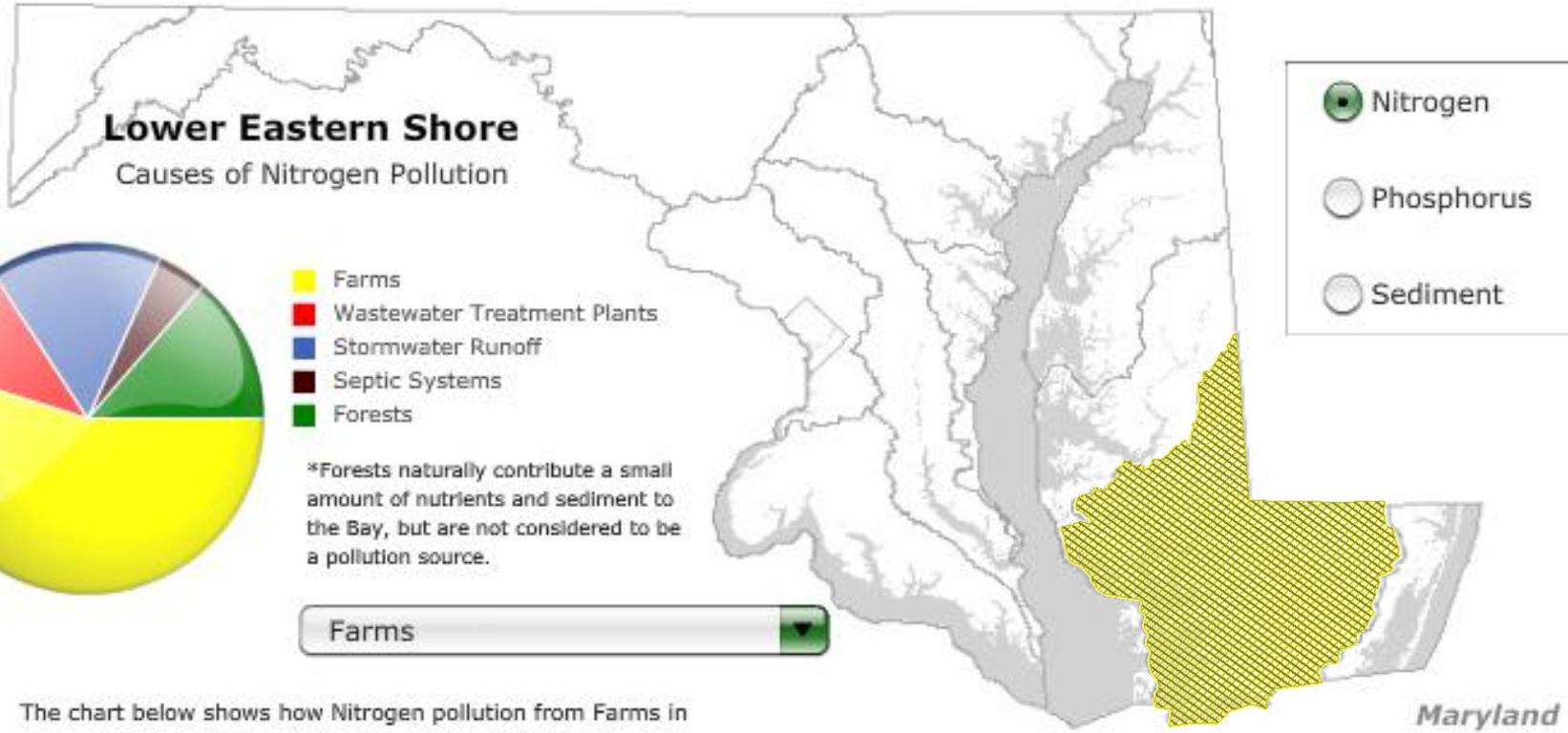
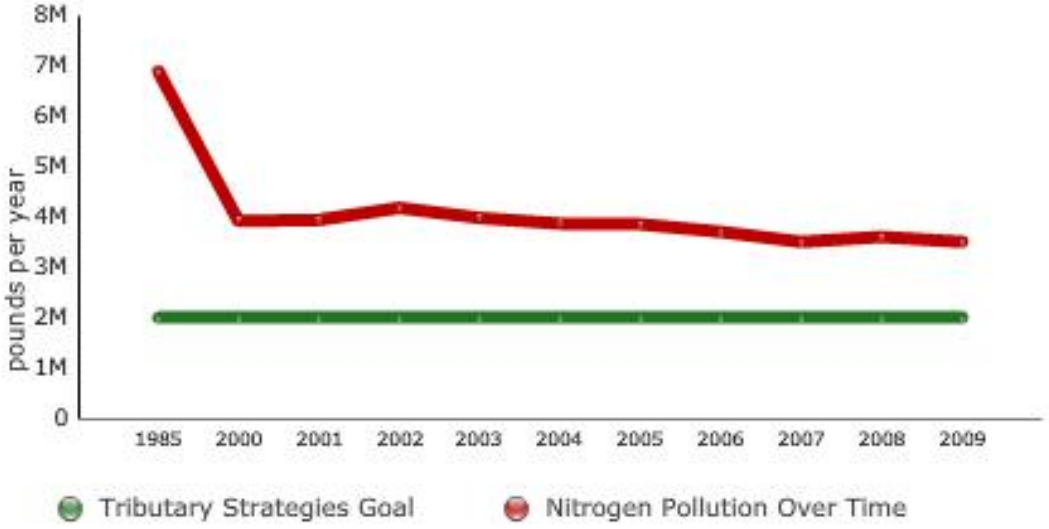
Farms



The chart below shows how Nitrogen pollution from Farms in Lower Eastern Shore has changed over time.



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Lower Western Shore

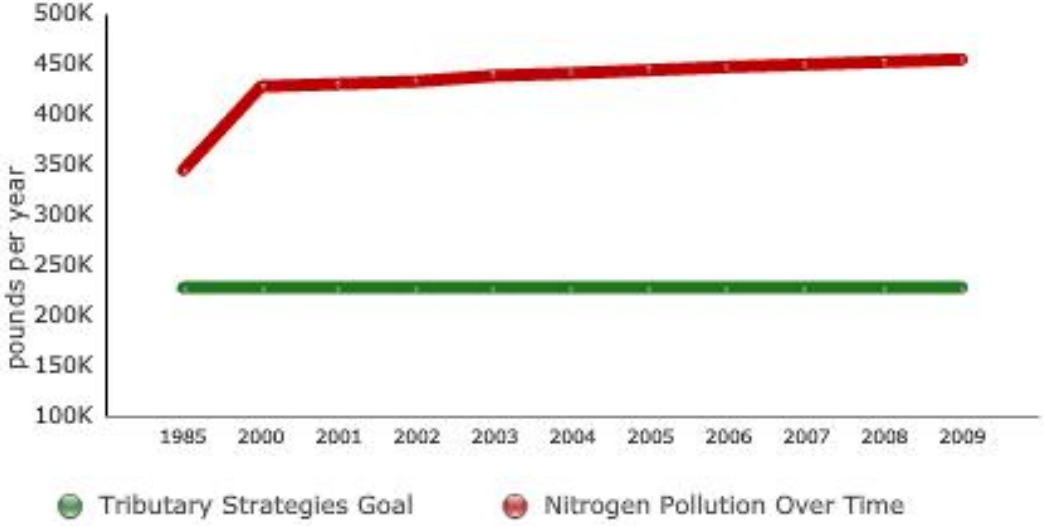
Causes of Nitrogen Pollution

- Farms
- Wastewater Treatment Plants
- Stormwater Runoff
- Septic Systems
- Forests

*Forests naturally contribute a small amount of nutrients and sediment to the Bay, but are not considered to be a pollution source.

Septic Systems

The chart below shows how Nitrogen pollution from Septic Systems in Lower Western Shore has changed over time.



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SOLUTIONS

2 Year Plan

Maryland's Bay Restoration Plans: 2-Year Milestones

Maryland can only restore the health of the Bay by implementing proven solutions called Best Management Practices (BMPs) on the most lands. For each category below, the most effective BMPs are listed in order of greatest impact.

Last Update: July 25, 2011

Cover Crops
2-Year Milestone Progress
(2009-2011)

- **Farms: Managing the Land**
  - Cover Crops
  - Soil Conservation & Water Quality Plans
  - Water Control Structures
  - Stream Protection with Fencing
  - Stream Protection without Fencing
- **Farms: Fertilizers and Animal Waste**
- **Farms: New Technologies**
- **Farms: Natural Filters**
- **Reducing Pollution from Urban Areas**
- **Restoring Natural Filters on Public Lands**
- **Conserving High Priority Lands**

Farms: Managing the Land
Cover Crops

Cover crops are small grains such as wheat or rye that are planted in the fall after the harvest of corn, soybeans and other summer crops to absorb unused fertilizers that may remain in the soil. Cover crops also provide a ground cover to prevent soil erosion in the winter.

Cover Crop Acres

2 Year Plan

Maryland's Bay Restoration Plans: 2-Year Milestones

Maryland can only restore the health of the Bay by implementing proven solutions called Best Management Practices (BMPs) on the most lands. For each category below, the most effective BMPs are listed in order of greatest impact.

Last Update: July 25, 2011

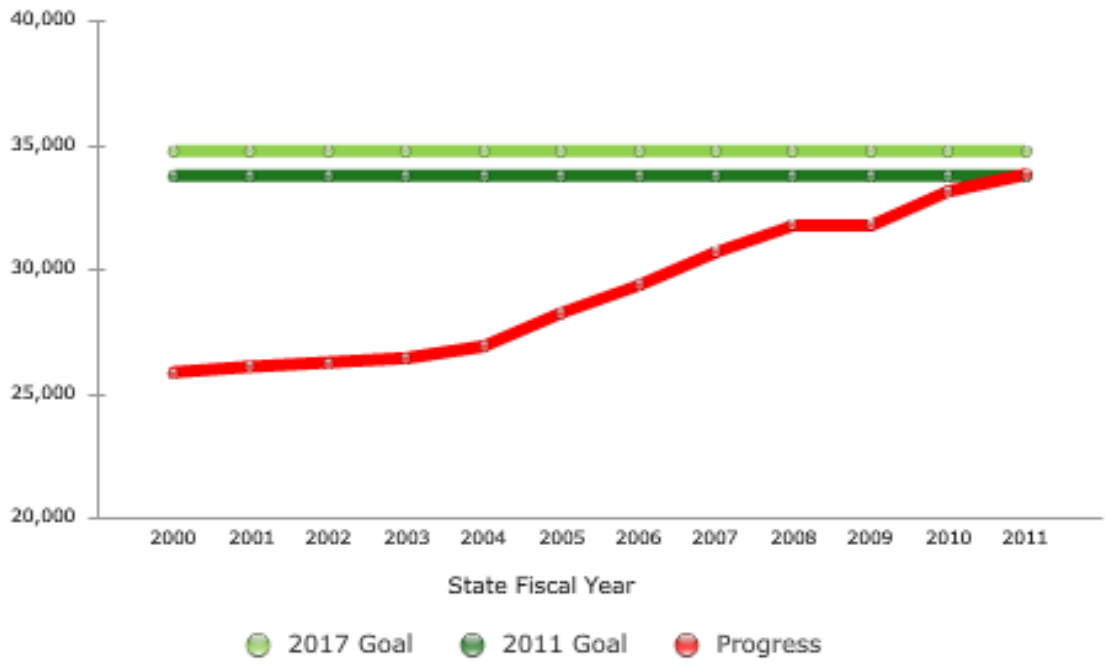
Stream Protection without 2-Year Milestone Progress (2009-2011)

- **Farms: Managing the Land**
  - Cover Crops
  - Soil Conservation & Water Quality Plans
  - Water Control Structures
  - Stream Protection with Fencing
  - Stream Protection without Fencing
- **Farms: Fertilizers and Animal Waste**
- **Farms: New Technologies**
- **Farms: Natural Filters**
- **Reducing Pollution from Urban Areas**
- **Restoring Natural Filters on Public Lands**
- **Conserving High Priority Lands**

Farms: Managing the Land
Stream Protection without Fencing

Watering troughs provide a safe, reliable source of water for livestock that is away from streams. The troughs help protects stream banks from erosion that may be caused by farm animals.

Protected Acres



2 Year Plan

Maryland's Bay Restoration Plans: 2-Year Milestones

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Last Update: July 25, 2011

Manure Transport
2-Year Milestone Progress
(2009-2011)

- **Farms: Managing the Land**
- **Farms: Fertilizers and Animal Waste**
  - Nutrient Management Plan Enforcement
  - **Manure Transport**
  - Poultry Waste Structures
  - Livestock Waste Structures
  - Runoff Control Systems
  - Poultry Litter Treatment
- **Farms: New Technologies**
- **Farms: Natural Filters**
- **Reducing Pollution from Urban Areas**
- **Restoring Natural Filters on Public Lands**
- **Conserving High Priority Lands**

Farms: Managing Fertilizers and Animal Waste
Manure Transport

Excess manure is transported away from farms with high soil phosphorus levels to other farms or locations that can use the manure safely.

Transported Tons

2 Year Plan

Maryland's Bay Restoration Plans: 2-Year Milestones

Maryland can only restore the health of the Bay by implementing proven solutions called Best Management Practices (BMPs) on the most lands. For each category below, the most effective BMPs are listed in order of greatest impact.

Last Update: July 25, 2011

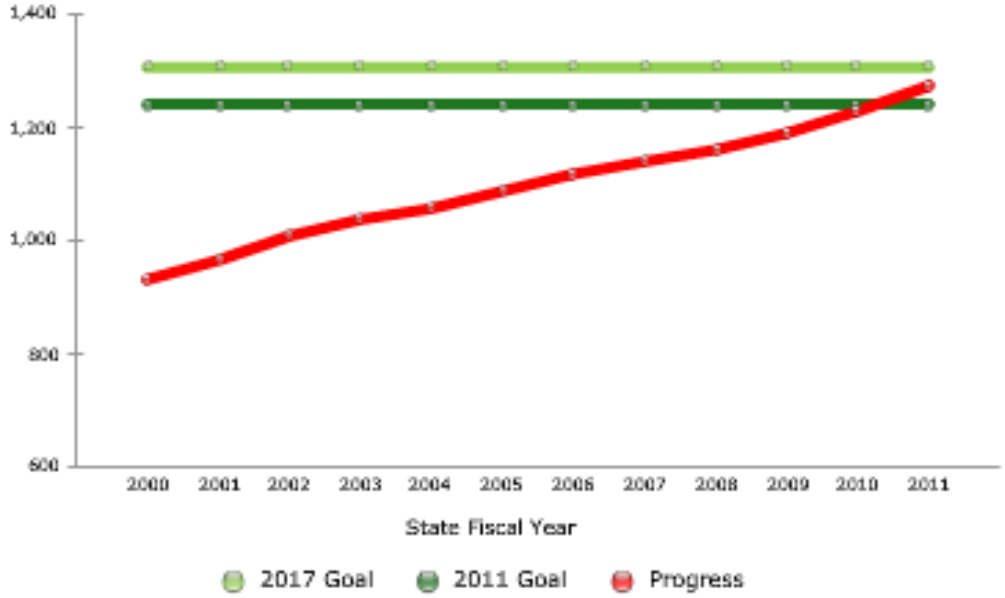
Livestock Waste Structures 2-Year Milestone Progress (2009-2011)

- **Farms: Managing the Land**
- **Farms: Fertilizers and Animal Waste**
  - Nutrient Management Plan Enforcement
  - Manure Transport
  - Poultry Waste Structures
  - **Livestock Waste Structures**
  - Runoff Control Systems
  - Poultry Litter Treatment
- **Farms: New Technologies**
- **Farms: Natural Filters**
- **Reducing Pollution from Urban Areas**
- **Restoring Natural Filters on Public Lands**
- **Conserving High Priority Lands**

Farms: Managing Fertilizers and Animal Waste
Livestock Waste Structures

Animal waste is stored in structures to protect it from the weather until it can be used as a crop fertilizer when conditions are right or transported to another location.

Livestock Waste Structures



2 Year Plan

Maryland's Bay Restoration Plans: 2-Year Milestones

Maryland can only restore the health of the Bay by implementing proven solutions called Best Management Practices (BMPs) on the most lands. For each category below, the most effective BMPs are listed in order of greatest impact.

Last Update: July 25, 2011

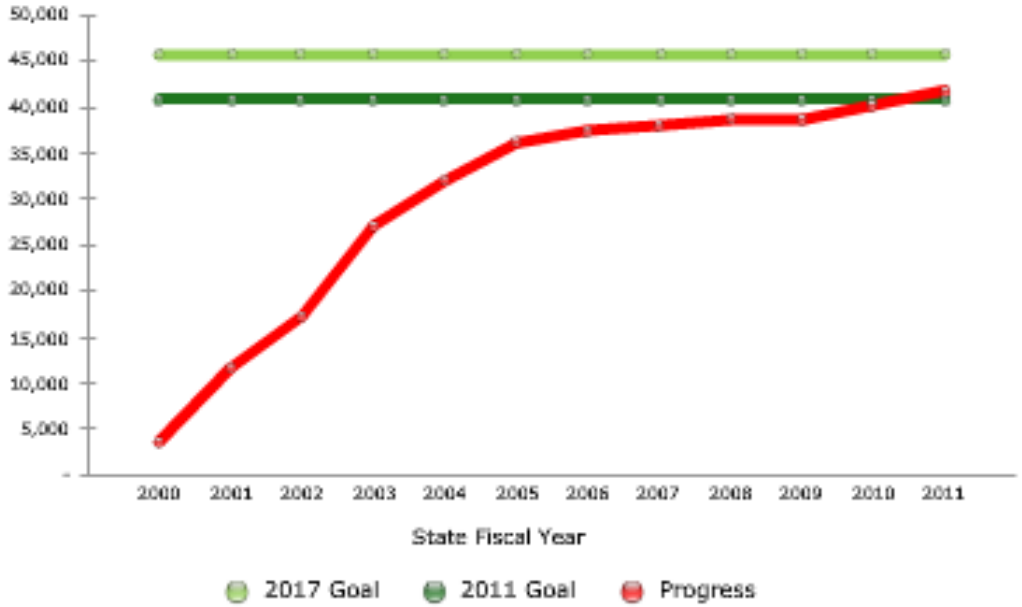
Streamside Grass Buffers 2-Year Milestone Progress (2009-2011)

- **Farms: New Technologies**
- **Farms: Natural Filters**
  - **Streamside Grass Buffers**
  - Retire Highly Erodible Land
  - Wetland Restoration
  - Streamside Forest Buffers
- **Reducing Pollution from Urban Areas**
- **Restoring Natural Filters on Public Lands**
- **Conserving High Priority Lands**

Farms: Natural Filters
Streamside Grass Buffers

Grasses planted next to waterways filter and take up nutrients coming off the land, stabilize the soil and provide wildlife habitat.

Grass Buffer Acres



2 Year Plan

Maryland's Bay Restoration Plans: 2-Year Milestones

Maryland can only restore the health of the Bay by implementing proven solutions called Best Management Practices (BMPs) on the most lands. For each category below, the most effective BMPs are listed in order of greatest impact.

Last Update: July 25, 2011

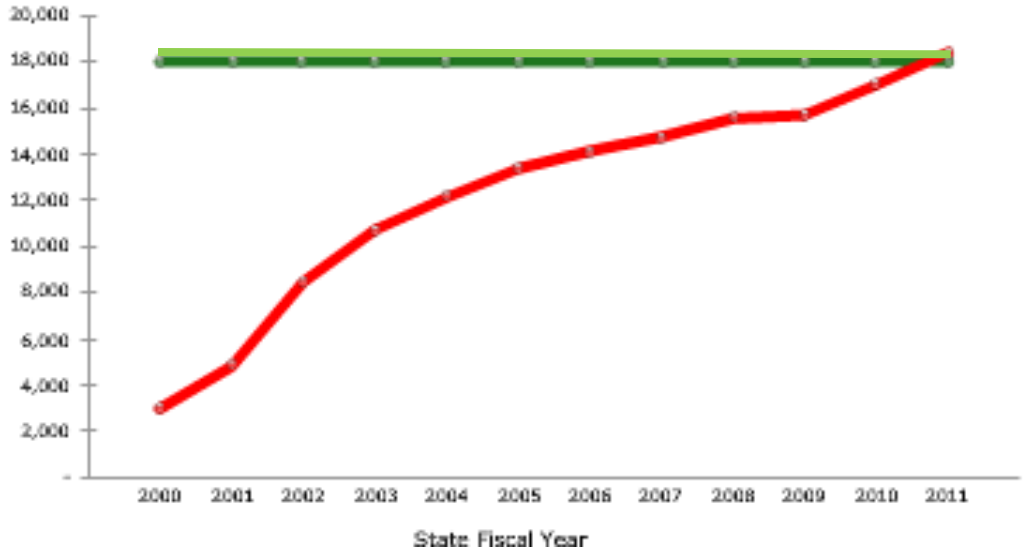
Retire Highly Erodible Land 2-Year Milestone Progress (2009-2011)

- **Farms: New Technologies**
- **Farms: Natural Filters**
  - Streamside Grass Buffers
  - Retire Highly Erodible Land
  - Wetland Restoration
  - Streamside Forest Buffers
- **Reducing Pollution from Urban Areas**
- **Restoring Natural Filters on Public Lands**
- **Conserving High Priority Lands**

Farms: Natural Filters
Retire Highly Erodible Land

Land that is especially vulnerable to erosion is removed from crop and hay production and is planted in either grass or forest. This land is usually not disturbed for at least 10 years.

Retired Acres



2 Year Plan

Maryland's Bay Restoration Plans: 2-Year Milestones

Maryland can only restore the health of the Bay by implementing proven solutions called Best Management Practices (BMPs) on the most lands. For each category below, the most effective BMPs are listed in order of greatest impact.

Last Update: July 25, 2011

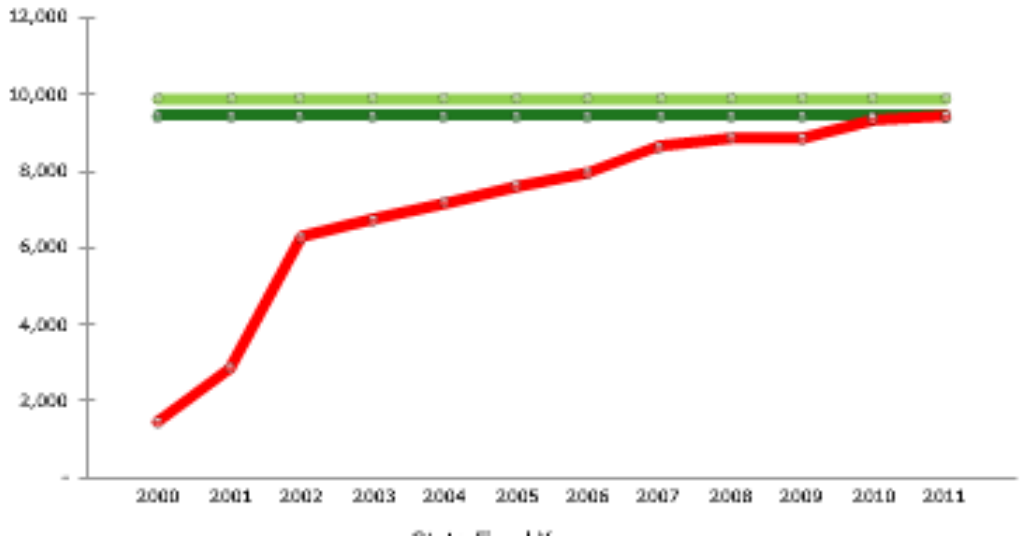
Wetland Restoration
2-Year Milestone Progress
(2009-2011)

- **Farms: New Technologies**
- **Farms: Natural Filters**
  - Streamside Grass Buffers
  - Retire Highly Erodible Land
  - **Wetland Restoration**
  - Streamside Forest Buffers
- **Reducing Pollution from Urban Areas**
- **Restoring Natural Filters on Public Lands**
- **Conserving High Priority Lands**

Farms: Natural Filters
Wetland Restoration

A wetland is an area of land where the soil wet or covered with water. Wetlands are often called swamps, marshes, or bogs.

Wetland Acres



2 Year Plan

Maryland's Bay Restoration Plans: 2-Year Milestones

Maryland can only restore the health of the Bay by implementing proven solutions called Best Management Practices (BMPs) on the most lands. For each category below, the most effective BMPs are listed in order of greatest impact.

Last Update: July 25, 2011

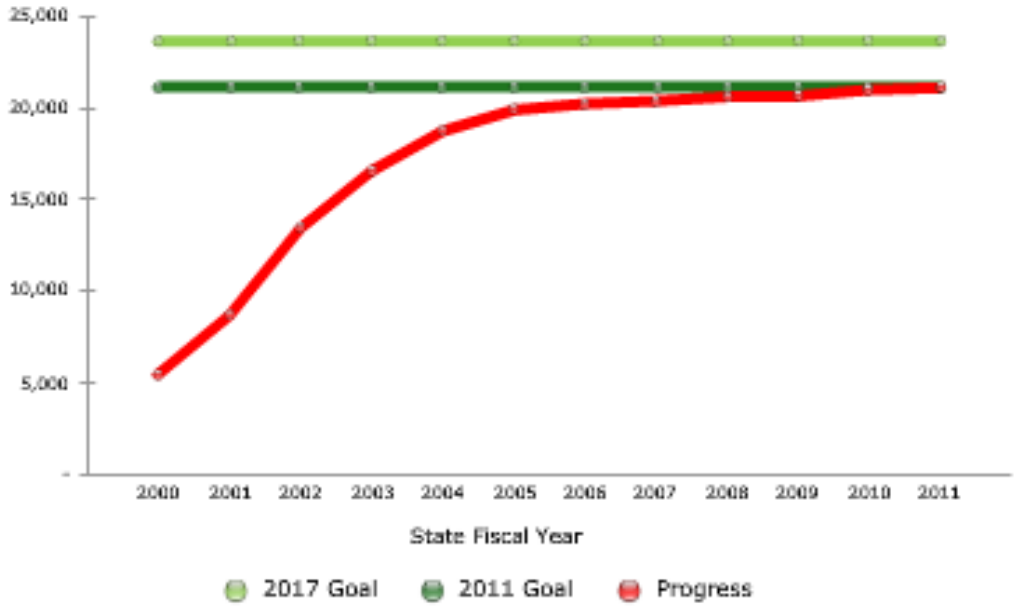
Streamside Forest Buffers 2-Year Milestone Progress (2009-2011)

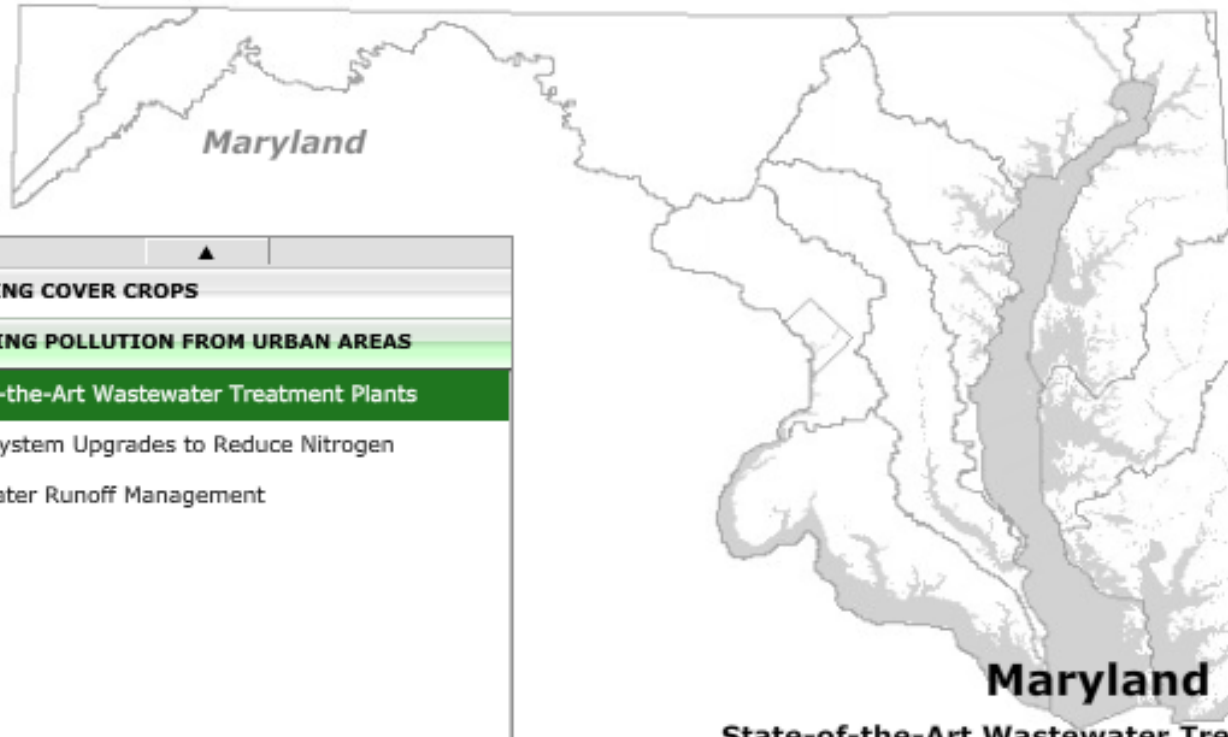
- **Farms: New Technologies**
- **Farms: Natural Filters**
  - Streamside Grass Buffers
  - Retire Highly Erodible Land
  - Wetland Restoration
  - **Streamside Forest Buffers**
- **Reducing Pollution from Urban Areas**
- **Restoring Natural Filters on Public Lands**
- **Conserving High Priority Lands**

Farms: Natural Filters
Streamside Forest Buffers

Trees planted next to waterways filter and take up nutrients coming off the land, stabilize the soil and provide wildlife habitat.

Forest Buffer Farm Acres





Click here for more information about State-of-the-Art Wastewater Treatment Plants.

- PLANTING COVER CROPS
- REDUCING POLLUTION FROM URBAN AREAS
  - State-of-the-Art Wastewater Treatment Plants
  - Septic System Upgrades to Reduce Nitrogen
  - Stormwater Runoff Management
- IMPLEMENTING BEST FARMING PRACTICES
- RESTORING NATURAL FILTERS
- CONSERVING HIGH PRIORITY LANDS

NOTE: For each category above, the most effective solutions are listed in order of greatest impact.

Progress is shown on this graph differently than for all of the other solutions. The goal is to move the nitrogen discharges down to or below the green goal line. The speedometer represents the current percent progress toward the goal since 2000.

Maryland

State-of-the-Art Wastewater Treatment Plants

2 Year Plan

Maryland's Bay Restoration Plans: 2-Year Milestones

Maryland can only restore the health of the Bay by implementing proven solutions called Best Management Practices (BMPs) on the most lands. For each category below, the most effective BMPs are listed in order of greatest impact.

Last Update: July 25, 2011

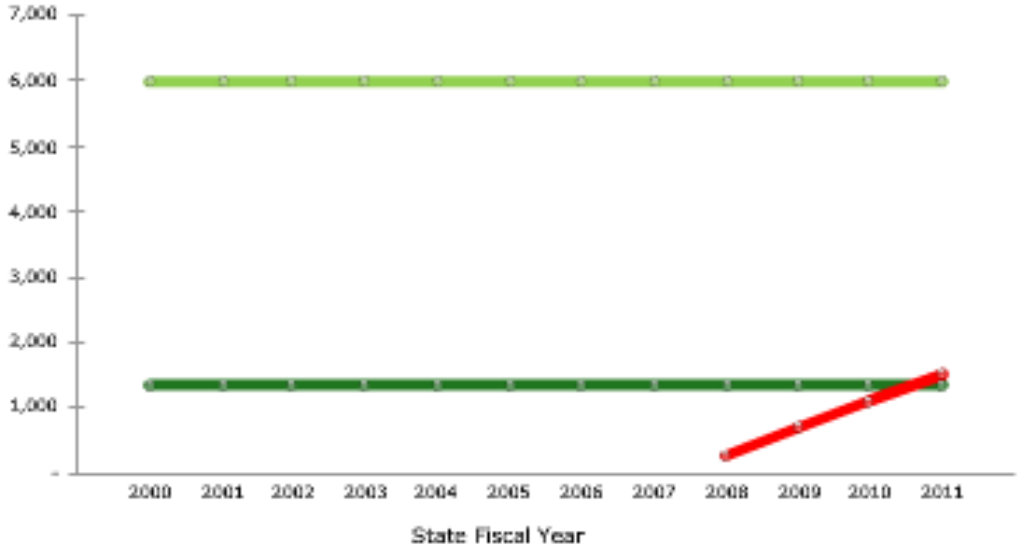
Septic Retrofits Inside of 2-Year Milestone Progress (2009-2011)

- **Farms: Natural Filters**
- **Reducing Pollution from Urban Areas**
  - Wastewater Treatment Plants ENR
  - Urban Nutrient Management Regulations
  - MD Healthy Air Act
  - Blue Plains BNR Upgrade
  - Stormwater Runoff Management Retrofits
  - **Septic Retrofits Inside of Critical Area**
  - Septic Retrofits Outside of Critical Area
  - Septic Hookups to WWTPs
- **Restoring Natural Filters on Public Lands**
- **Conserving High Priority Lands**

Reducing Pollution from Urban Areas
Septic Retrofits Inside of Critical Area

This technology reduces the discharge of nitrogen from septic systems to the environment thereby improving the quality of both ground and surface water.

Septic Systems



2 Year Plan

Maryland's Bay Restoration Plans: 2-Year Milestones

Maryland can only restore the health of the Bay by implementing proven solutions called Best Management Practices (BMPs) on the most lands. For each category below, the most effective BMPs are listed in order of greatest impact.

Last Update: July 25, 2011

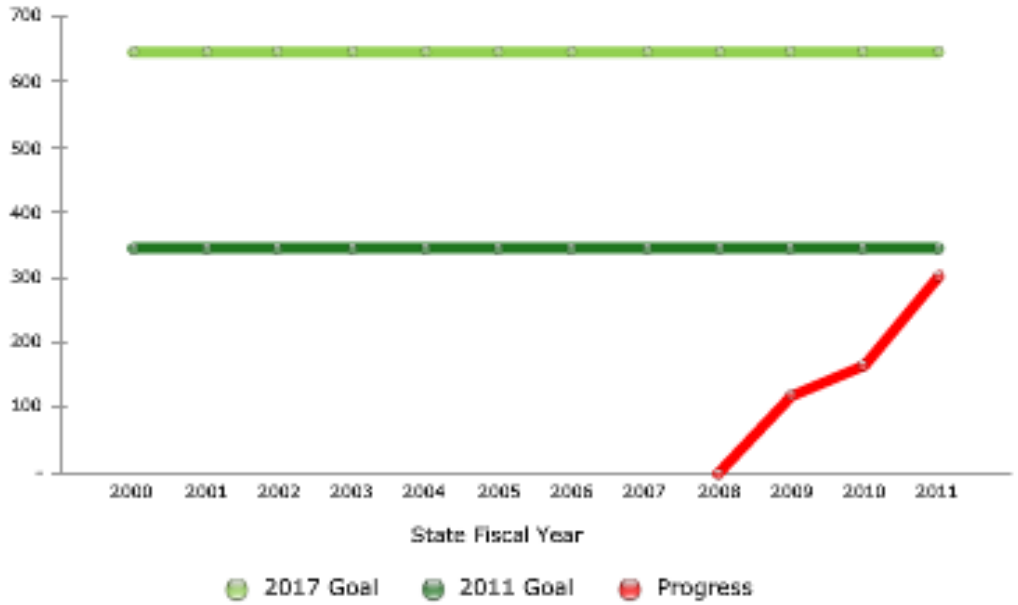
Streamside Forest Buffers
2-Year Milestone Progress
(2009-2011)

- **Reducing Pollution from Urban Areas**
- **Restoring Natural Filters on Public Lands**
  - Forest Brigade - 1,000,000 trees
  - Wetland Restoration
  - **Streamside Forest Buffers**
  - Marylanders Plant Trees
  - Cover Crops (Revised Leases)
  - Streamside Grass Buffers
  - State-owned Septics (DNR Land)
- **Conserving High Priority Lands**

Restoring Natural Filters on Public Lands
Streamside Forest Buffers

Trees planted next to waterways filter and take up nutrients coming off the land, stabilize the soil and provide wildlife habitat.

Forest Buffer Public Acres



2 Year Plan

Maryland's Bay Restoration Plans: 2-Year Milestones

Maryland can only restore the health of the Bay by implementing proven solutions called Best Management Practices (BMPs) on the most lands. For each category below, the most effective BMPs are listed in order of greatest impact.

Last Update: July 25, 2011

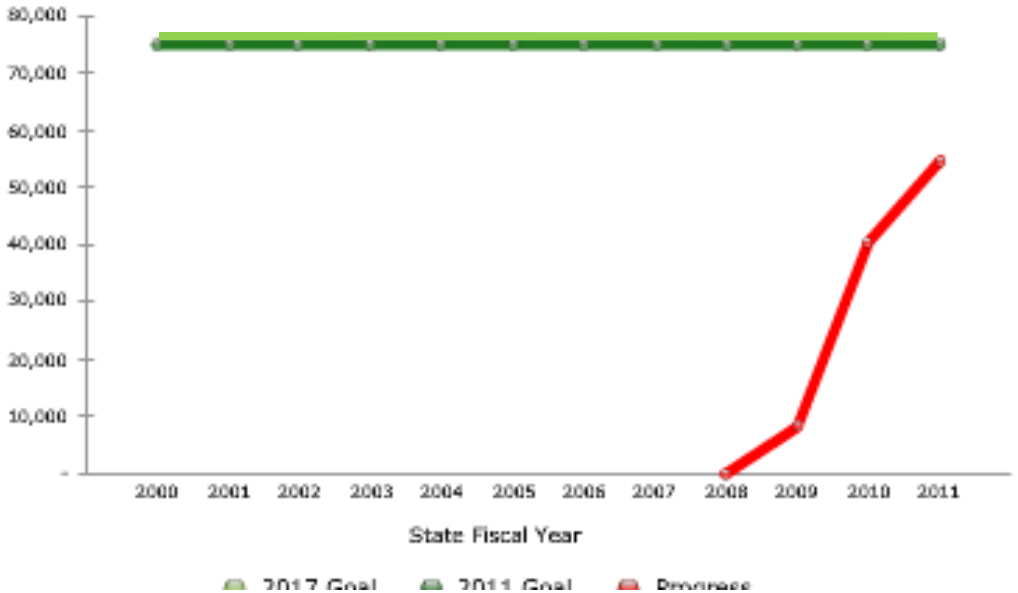
Marylanders Plant Trees - 2-Year Milestone Progress (2009-2011)

- **Reducing Pollution from Urban Areas**
- **Restoring Natural Filters on Public Lands**
  - Forest Brigade - 1,000,000 trees
  - Wetland Restoration
  - Streamside Forest Buffers
  - **Marylanders Plant Trees**
  - Cover Crops (Revised Leases)
  - Streamside Grass Buffers
  - State-owned Septics (DNR Land)
- **Conserving High Priority Lands**

Restoring Natural Filters on Public Lands
Marylanders Plant Trees - 50,000 trees/yr

Trees planted next to waterways filter and take up nutrients coming off the land, stabilize the soil and provide wildlife habitat.

Planted Trees



2 Year Plan

Maryland's Bay Restoration Plans: 2-Year Milestones

Maryland can only restore the health of the Bay by implementing proven solutions called Best Management Practices (BMPs) on the most lands. For each category below, the most effective BMPs are listed in order of greatest impact.

Last Update: July 25, 2011

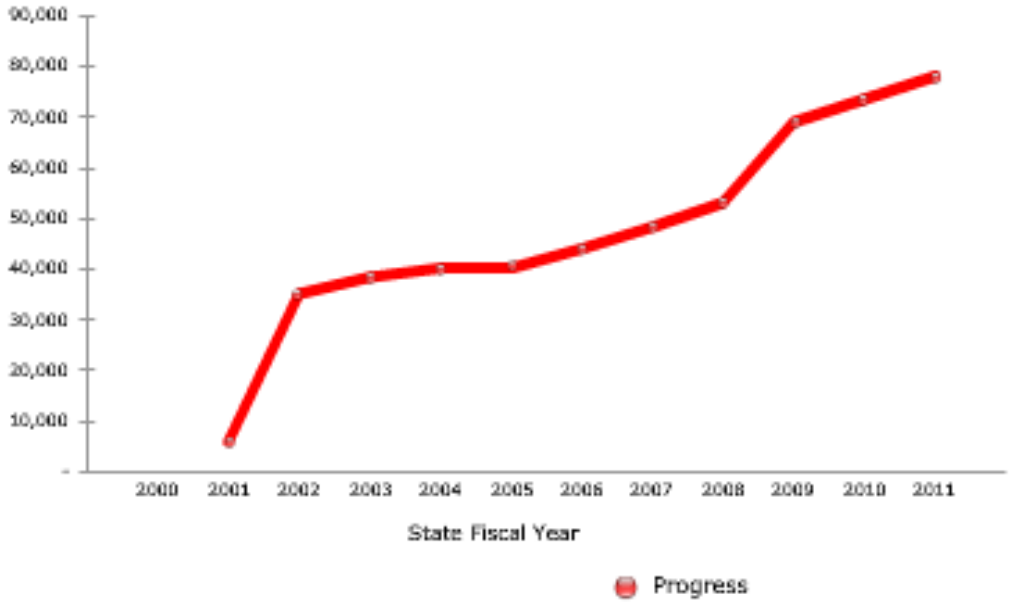
Program Open Space
2-Year Milestone Progress
(2009-2011)

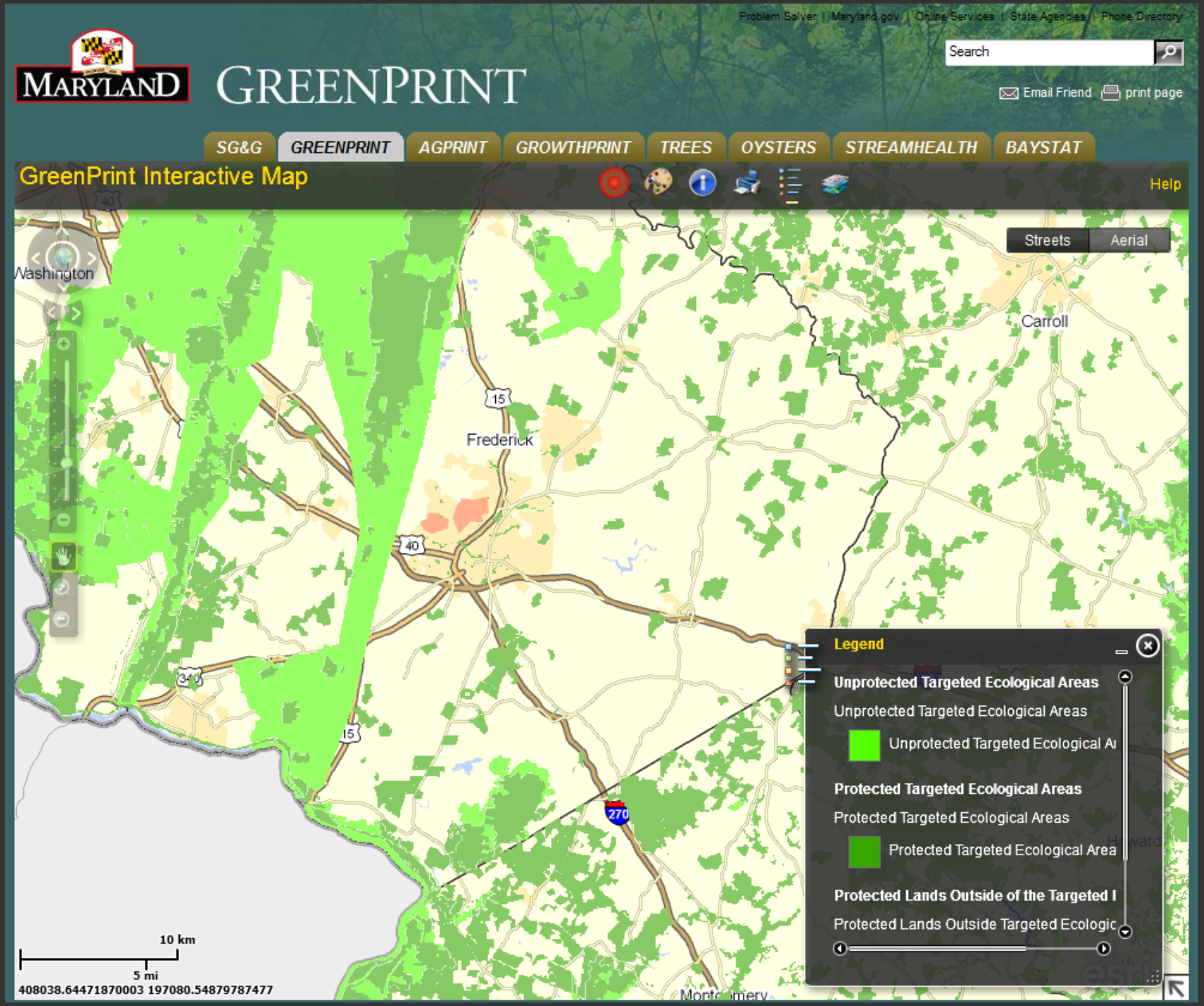
- **Restoring Natural Filters on Public Lands**
- **Conserving High Priority Lands**
- **Program Open Space**
- CREP Permanent Easements
- Rural Legacy
- Maryland Environmental Trust
- Maryland Agricultural Land Preservation Foundation

Conserving High Priority Lands
Program Open Space

Program Open Space (POS) symbolizes Maryland's long term commitment to conserving our natural resources while providing exceptional outdoor recreation opportunities for our citizens.

Conserved Acres

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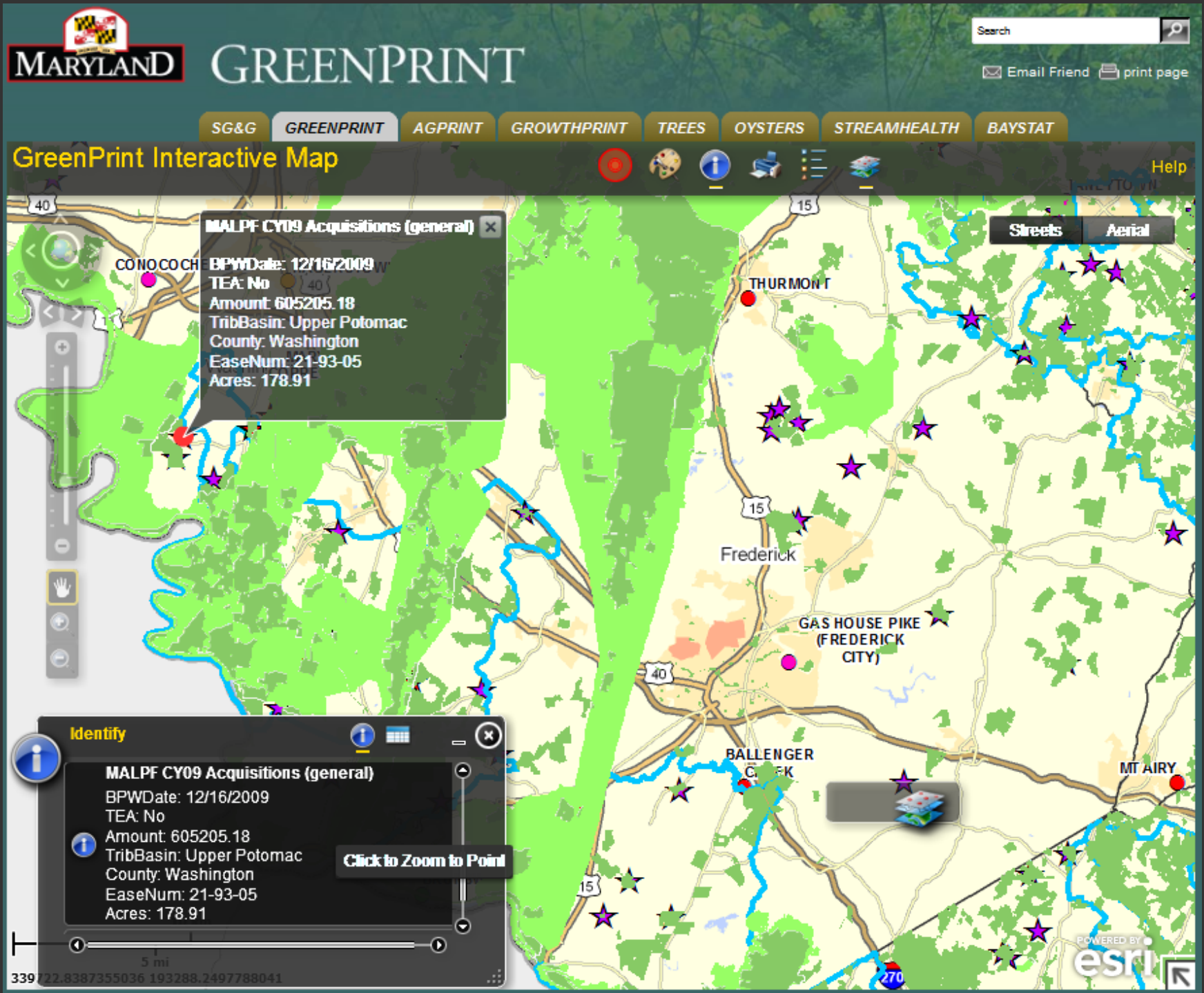
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THURMONT
Frederick
GAS HOUSE PIKE (FREDERICK CITY)
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BPWDate: 12/16/2009
TEA: No
Amount: 605205.18
TribBasin: Upper Potomac
County: Washington
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Acres: 178.91
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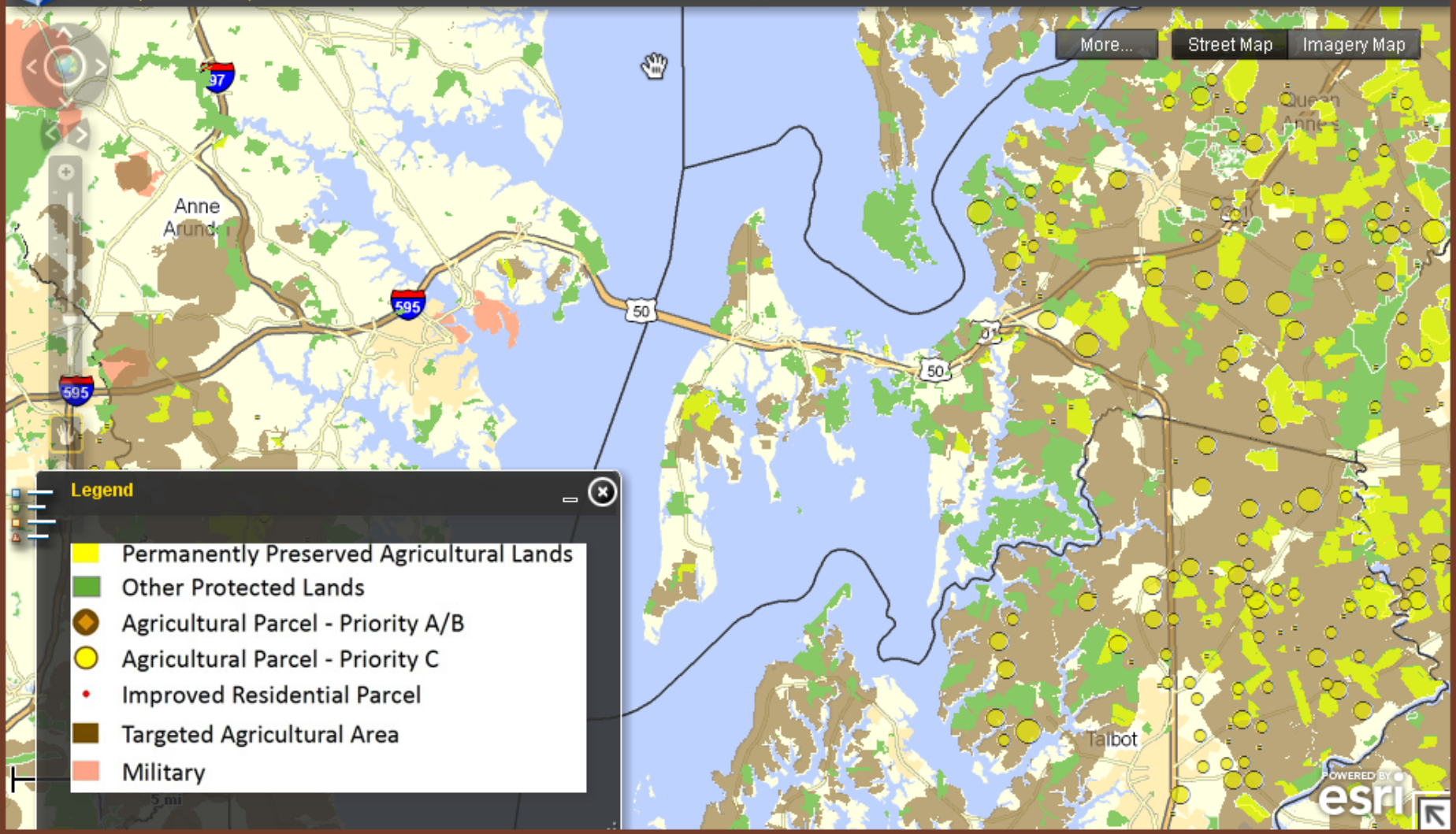

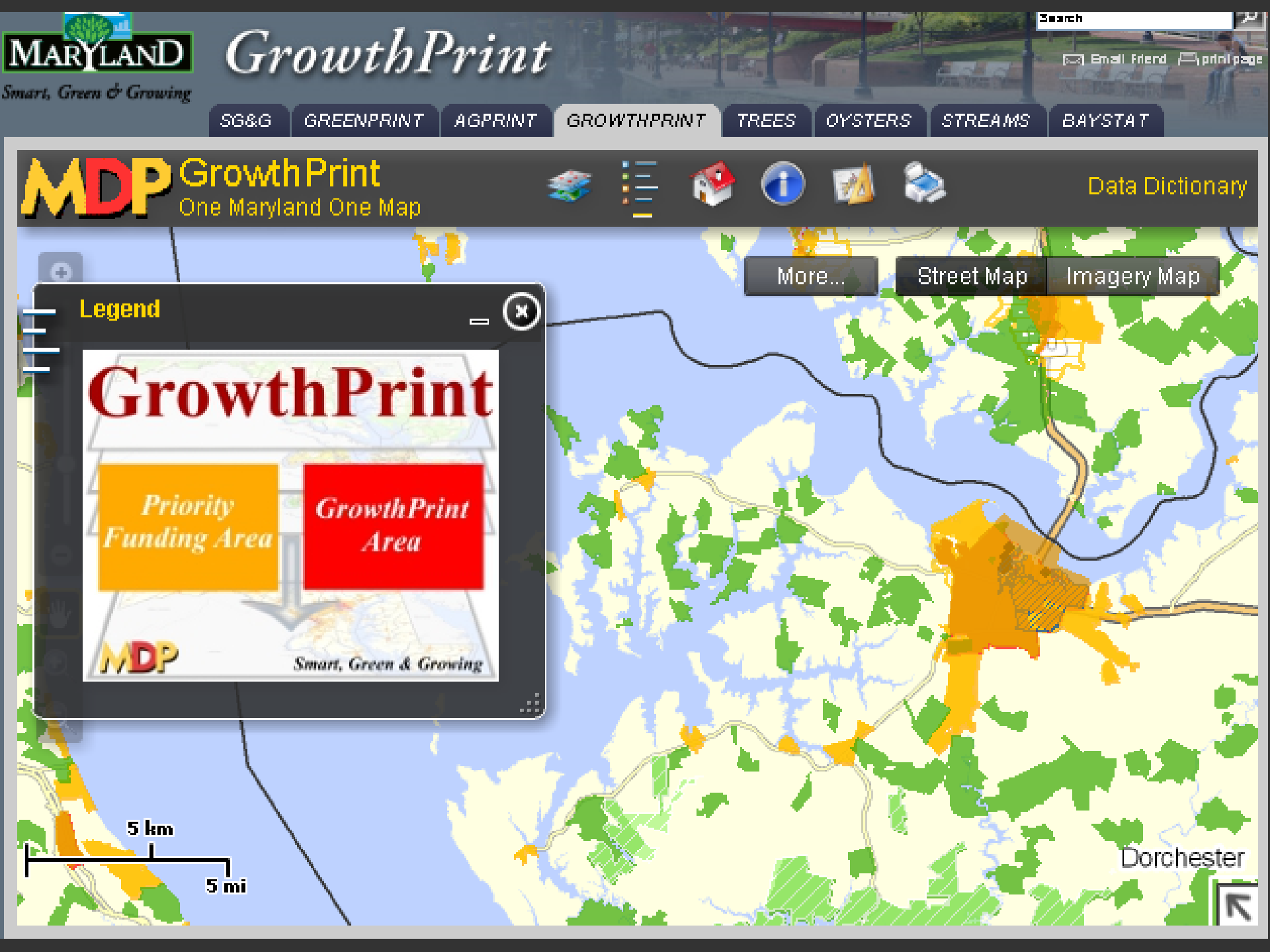
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More...
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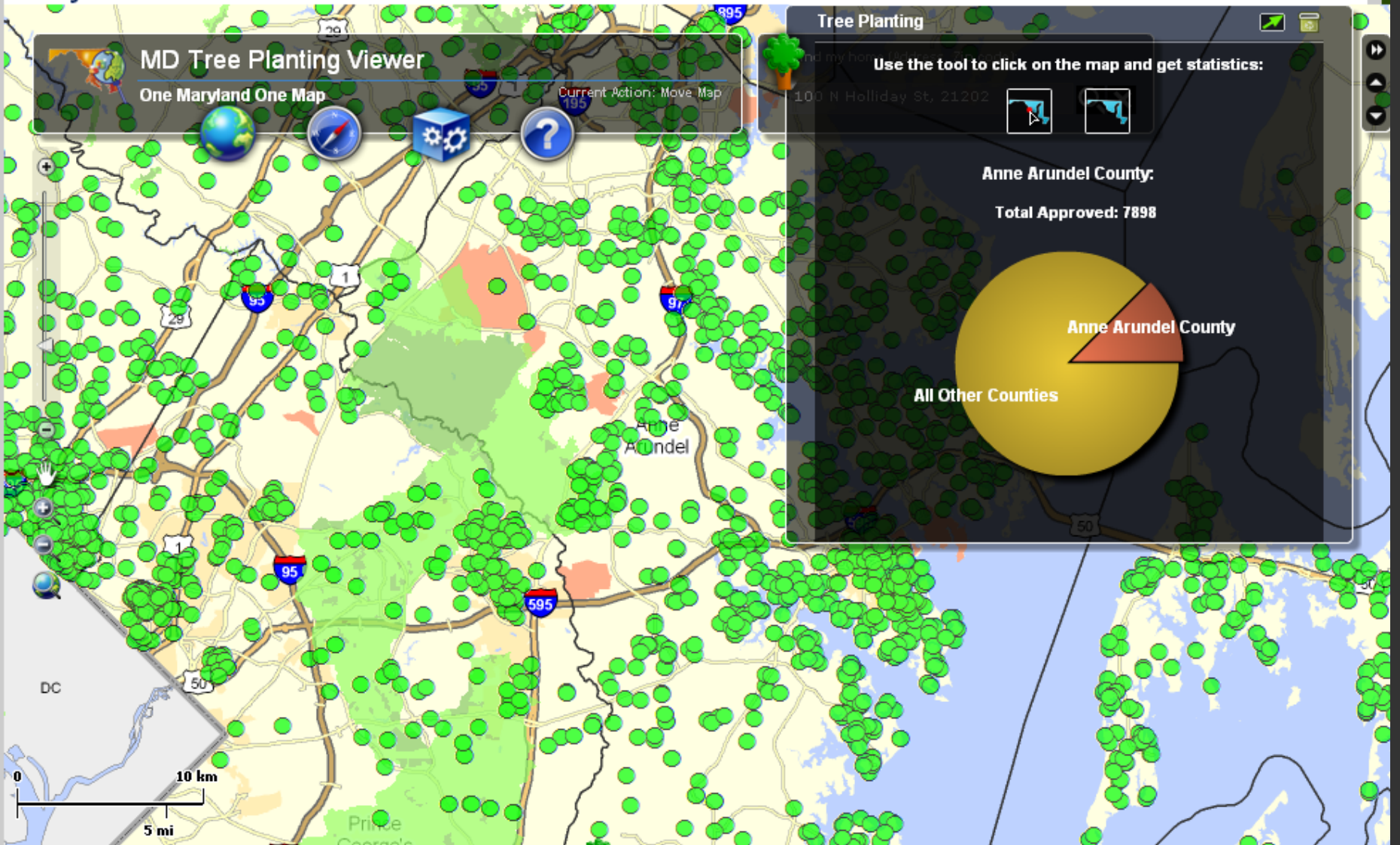
Marylanders Plant Trees



Governor Martin O'Malley